PRACTICAL PHYSIOLOGY.

Lectures on EXPERIMENTAL PHYSIOLOGY.

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LECTURE XI.

CIRCULATION — (CONTINUED.)

In the last lecture the following diagram was given as indicating probable nerve arrangements concerned in the innervation of the heart. It was shown that within the cardiac organ (Fig. 48, c) there is a reflex-nerve mechanism, consisting of cells connected with intra- and extra-cardiac nerves; the former being cardio-motor (*c m*) and excito-cardio-motor (*e c m*), the latter cardio-inhibitory (*c i*) and excito-cardio-motor (*e c m*).

FIG. 48.

The extra-cardiac nerves are branches of the vagus (v) and sympathetic (s); both are connected with the medulla oblongata (M). Both nerves transmit their influence to the heart, the sympathetic accelerating the cardiac action, the vagus inhibiting or retarding it, and—if powerfully stimulated—even for a time completely arresting the cardiac contractions. During the arrest the heart is *dilated*. The branch of the vagus which does this is, in rabbits, the inferior cardiac. We studied the action of another branch of the vagus, the superior cardiac, and we saw that it is the sensory nerve of the heart, and, moreover, that it is an inhibitory nerve for bloodvessels—that is to say, when it acts it brings the contractile elements of bloodvessels into a state of rest, thereby causing dilatation. So while the inferior cardiac branch of the vagus is *cardio*-inhibitory, the superior cardiac branch is *vaso*-inhibitory. The former transmits its influence from the medulla oblongata to the cardiac ganglia, the latter transmits its influence from some portion of the heart to the medulla oblongata. We will presently consider how it brings about the dilatation of bloodvessels.

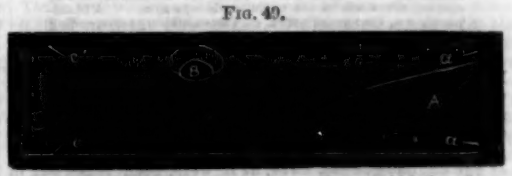
Innervation of Bloodvessels.

By the investigations of Bernard and Brown-Séquard it has been established that the contractile elements of the bloodvessels are presided over by motor nerves. These are in consequence named vaso-motor nerves. Their action produces diminution in the calibre of the bloodvessels. If the action of the vaso-motor nerves be suspended the bloodvessels dilate, most probably because, their contractile elements being paralysed, the pressure of the blood is able to distend the vessel. The vaso-motor nerves are immediately derived from the sympathetic; but Ludwig and Thiry have shown that the nerve-cells presiding over them are not contained in the sympathetic ganglia, but in the medulla oblongata. The *general* vaso-motor centre for the body is in the *cerebro-spinal* nervous system. I think it safe to say *general* vaso-motor centre, for possibly there are vaso-motor nerve-centres in the submaxillary ganglion, and in the ganglia found in the penis. These peripheric vaso-motor centres are quite insignificant compared with the great centre in the medulla. Recently the position of the vaso-motor centre in the medulla has been investigated by Ludwig and Owajannikow. From experiments upon rabbits and cats they have ascertained that it extends from one millimetre below the corpora quadrigemina to five millimeters above the calamus. It lies on either side at a little distance from the middle line. From this centre the vaso-motor nerves pass down the spinal cord to various parts of the body. They leave the cord in the anterior roots of the spinal nerves; from thence they either pass through, or receive branches from, the ganglia upon the sympathetic, and proceed to the bloodvessels. One might anticipate that the vaso-motor nerves for the head and face would leave the medulla with the other nerves for these parts. This is not the case. They descend through the cervical portion of the spinal cord, leave it at the lower part of the neck, join the cervical sympathetic nerve, and ascend in that to the bloodvessels of the head. Even the vaso-motor nerves for the bloodvessels of the pia mater take this roundabout course.

The general vaso-motor centre appears to be more or less constantly in action; so that the bloodvessels are usually maintained in a semi-contracted state. In consequence of this we generally find that vascular dilatation follows division of these nerves. It is easy to demonstrate this fact. I have just said that the cervical sympathetic contains the vaso-motor nerves for the head. We take a rabbit with white ears. Look at the aural bloodvessels: the vascularity of both ears is similar; and when one closely observes the artery running up the middle of the ear one may often see it contracting rhythmically. At intervals it suddenly narrows and then dilates. A distinctly peristaltic contraction may also sometimes be seen in the veins. We now expose the sympathetic on one side of the neck. It lies just behind the vagus, close beside another small nerve, the superior cardiac branch of the vagus. You may be puzzled to know which is the sympathetic. Remember that the sympathetic is the *larger* of these two small nerves. [The cervical sympathetic was divided on one side. The consequent dilatation of vessels and increase of temperature were observed. It was pointed out that the rhythmical contractions of vessels had disappeared. The cranial end of the nerve was then stimulated, and the consequent pallor of the ear demonstrated.]

The largest vaso-motor nerve in the body is the great splanchnic nerve. It presides over the vessels of most of the abdominal viscera. It is sometimes necessary in physiological experiments to paralyse the bloodvessels of the body generally. This is readily done by dividing the cervical portion of the spinal cord at some little distance below the medulla oblongata. If, after the section, we desire to stimulate the vaso-motor nerves generally, we require to place two electrodes in the cervical portion of the cord (see Fig. 19, THE LANCET, May 27th, 1871); one on a level with, say, the third, the other on a level with the fifth, cervical vertebra. The contraction of vessels produced in this way may be readily seen in the frog. I have injected $\frac{1}{12\frac{1}{2}}$ gr. of curara under the skin to paralyse the voluntary motor nerves, and so get rid of spasm of the voluntary muscles when we stimulate the spinal cord. I stretch the web, tie threads round two neighbouring toes, and fix them in slits on either side

FIG. 49.



Frog plate, made of a piece of cardboard. A, Slit over which the web may be stretched. B, Slit partially surrounded by a crescent of cork, to which the intestine may be pinned when the mesentery is to be examined. A slip of glass may be put above and below the web or mesentery, if desired. *a*, *a'*, Slits for fixing the threads round the toes. *c*, *c'*, Slits for the threads round the arms. If the animal is not narcotised or paralysed, it is necessary to take a piece of muslin: make a hole in it sufficiently large to allow one leg to pass through it; after the leg has been thrust through the hole, gather up the muslin around the head so as to enclose the other leg and the arms; tie a string round the neck of the bag, and draw the ends of the string through the slits *c* and *c'*, and tie them together.

of a triangular window in a piece of cardboard. (Fig. 49.) The back is uppermost. Two common sewing needles fixed in a piece of gutta-percha are pushed between the scapulæ

into the spinal cord. The heads of the needle-electrodes are connected with fine wires, the other ends of which are joined to a faradic machine, so that we may faradise the cord when we please. When we watch the bloodvessels of the web with a power of some 200 diameters and faradise the spinal cord with a somewhat powerful current, there is generally little difficulty in seeing that the arteries and capillaries become narrowed. The narrowing is most marked in the case of the arteries. In performing this experiment it is necessary to beware of giving too large a dose of curara. A powerful dose paralyses not only the voluntary motor but also the vaso-motor nerves. Do not give more than $\frac{1}{1000}$ gr. Everyone admits that the arteries and veins possess contractility. Bennett has always maintained that the capillaries also possess this property. Recently, Stricker has lent his support to Bennett's view. Others, however, are of opinion that the narrowing of the capillaries is always due merely to their recoil, when, owing to contraction of the arteries, a smaller quantity of blood is permitted to enter them. I must say that I have not in full-grown frogs seen any capillary contraction which might be not referred to simple elastic recoil. In the tail of the tadpole, however, the capillaries are distinctly contractile.

The general vaso-motor centre in the medulla oblongata appears then to be in almost constant action, thereby keeping up some degree of contraction of the vessels. The activity of the centre may be increased or diminished by the excitement of various nerves. It may be increased by stimulating sensory nerves, by accumulation of carbonic acid in the blood, and by certain emotions. Increase of its action following the stimulation of afferent nerves leads us to think that there is a reflex-nerve mechanism whose nerve-centre is in the medulla. I therefore construct this diagram (Fig. 50). I put two cells in the medulla ob-

FIG 50.

Diagram to represent what is probably the nerve-mechanism concerned in the innervation of bloodvessels. An afferent and an efferent nerve-cell in the medulla oblongata, M. V, A bloodvessel. *v m*, Vaso-motor nerve. *v i*, Vaso-inhibitory nerve, ending in the peri-vascular tissue. *e v m*, Excito-vaso-motor nerves, ending in the vessel and in the peri-vascular tissue.

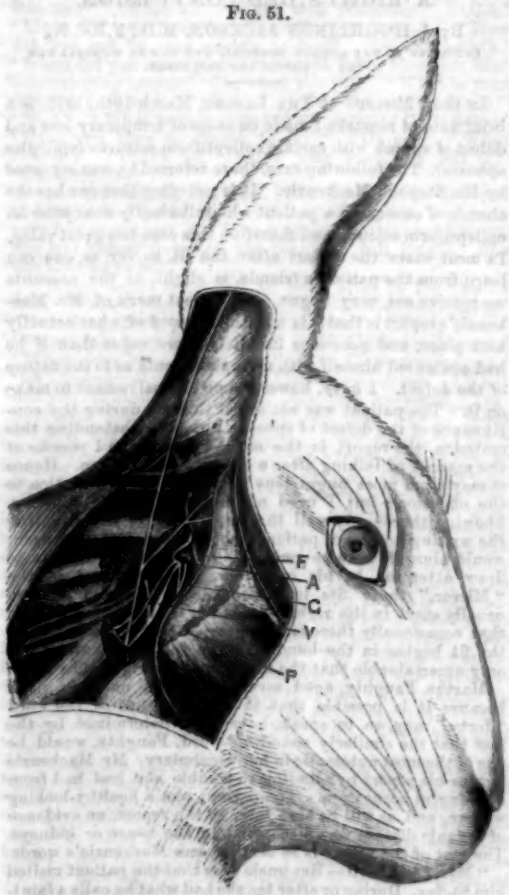
longata (M) to represent the centres for the reflex action. One cell might do; but as I have always used two cells for the reflex mechanism, I use them here of course. I am disposed to think that these cells correspond to the *intracardiac* ganglia. (See Fig. 48.) I am inclined to think that the cells of the cardiac ganglia have, as it were, been taken out of the medulla away from the general centre for the vascular system, and have been put in the heart. Mark you, these intracardiac cells are *still directly connected* with the *medulla* by the vagus and sympathetic. Think over this point. Well, I put in the diagram three fibres to correspond to the intracardiac fibres (Fig. 48), one intercentral, the other two joining the cells to a bloodvessel (v). One of these, *v m*, is efferent, and vaso-motor in its function. About its existence there can be no doubt. The existence of the other fibre is not so certain. It is an afferent fibre, and excites the cells in the medulla. Hence I call it excito-vaso-motor. It seems to convey influences from the lining membrane or wall of the vessel to the vaso-motor centre, just as the corresponding fibre in the heart (*e c m*, Fig. 48) conveys excito-motor influences from the endocardium to the intracardio-motor ganglia. I am disposed to think that there is this afferent fibre proceeding from the vascular wall to the medulla, because if we force a cold fluid into the vessel of a warm-blooded animal, or any fluid under a great pressure, the vessel contracts. No doubt this contraction can take place even after destruction of the vaso-motor centre in the medulla, but it takes place much more readily if the vaso-motor centre and its nerves be intact. But, inasmuch as afferent nerves connected with other parts—e.g., the skin, or, indeed, nerves of ordinary sense anywhere—cause vascular spasm when stimulated, I put in another excito-motor fibre (*e v m*, Fig. 50) ending in the tissues. This fibre probably corresponds to the extra-cardiac excito-cardio-motor nerves (*e c m*, Fig. 48), and, in order to bring out this resemblance more strongly, I have put it in this diagram as a separate fibre.

The action of the vaso-motor centre may, however, also be diminished. The effect of this is diminished contraction or complete relaxation of the bloodvessel. The vaso-motor nerve being for the time paralysed, the walls of the vessels relax, and the blood-pressure and the elasticity open up the vessels. The nerves which do this I call vaso-inhibitory nerves. They correspond to the cardio-inhibitory nerves (Fig. 48, *c i*). Bernard discovered the fact that bloodvessels may be dilated by stimulating certain nerves. He found that when he divided the great auricular nerve in the rabbit and then stimulated the central end the bloodvessels of the ear became dilated. Slight contraction preceded this dilatation. It is not difficult to satisfy oneself of the truth of this. There are two nerves in the rabbit's ear which are readily available for this experiment—the great and the posterior auricular nerves. The former lies just under the skin in the middle of the ear, running from the base towards the tip, immediately anterior to the central vessel. This nerve is derived from the second and third cervical nerves. The posterior auricular nerve, a branch of the second cervical, lies near the occipital spine. It is at first covered by a thin layer of muscle, and afterwards penetrates a plate of cartilage, which can be felt with the finger between the ear and the occipital spine. The first nerve is most easily exposed. If we divide it and faradise the central end, the artery contracts and then rapidly becomes greatly dilated. The dilatation is often greater than that which follows division of the vaso-motor nerves. Lovén showed that the stimulation of the central ends of other sensory nerves in the rabbit produced transient contraction and then continued dilatation of the bloodvessels in the parts supplied by the nerves. But he ascertained something more than Bernard. He discovered that while stimulation of a sensory nerve produces dilatation of vessels in the territory supplied by the nerve, it produces at the same time contraction of vessels in other parts of the body. This double effect, however, takes place only when the brain is active. If narcotism be produced by chloral, or if the cerebrum be removed, stimulation of sensory nerves does not produce vascular contraction, but only vascular dilatation. From the researches of Droschfeld and Cyon it appears, then, that the ordinary sensory nerves contain fibres which are vaso-inhibitory, and fibres which are excito-vaso-motor. The former appear to act directly upon the vaso-motor centre in the medulla, so as to inhibit or diminish action; the latter appear to act on that centre through some part of the brain above the medulla oblongata, so as to increase the action of the vaso-motor centre.* The most remarkable vaso-inhibitory nerve which we know is the superior cardiac branch of the vagus. If we divide this nerve and stimulate its central end we cause a remarkable lowering of the blood-pressure, owing chiefly to dilatation of vessels in the abdominal viscera and lungs (Ludwig and Cyon). The vascular dilatation in this case takes place without any previous contraction such as happens in the other cases I have mentioned. In all these instances the vascular dilatation follows stimulation of the central ends of the divided nerves. The inhibiting influence seems to be conveyed to the medulla. But there are two instances where vascular dilatation follows stimulation of the peripheral, and not the central, ends of the nerves—to wit, the chorda tympani and

* The left cell in Fig. 50 ought to have been placed higher than the right cell.

the nervi erigentes of the penis. You have seen me perform Bernard's experiment on the chorda tympani. When the peripheral end of the divided nerve was stimulated the

FIG. 51.



Some of the nerves of the rabbit's ear. The great auricular nerve is seen running up the centre of the ear. The posterior auricular nerve is not seen. F, Facial nerve, giving off its auricular branch, A. G, Glosso-pharyngeal nerve. V, Vagus. Both send branches to the ear. P, Parotid gland. (After Lovén.)

vessels of the submaxillary gland dilated. Eckhardt has shown that if in the dog the peripheral ends of the divided nervi erigentes of the penis be stimulated, dilatation of vessels ensues. The chorda transmits its influence to the submaxillary ganglion. There are many ganglionic cells upon the nervi erigentes. Are these cells peripheral vaso-motor centres, whose action is inhibited by stimulating these nerves?

The idea commonly prevails that when a part becomes the seat of active nutritive change its bloodvessels undergo dilatation, by reason of the increased attraction for blood manifested by the tissues. The *vis a fronte* is supposed to become so powerful that it can overcome the contraction of the arterial walls, and thereby produce dilatation. It occurred to me some years ago that the vascular dilatation in such a case is possibly the result of an influence transmitted by the tissue through its vaso-inhibitory nerves. Lovén came near this idea, and it is surprising that he did not hit upon it. He showed that the bloodvessels of a part may be dilated by the artificial stimulation of the afferent nerves of that part; and, in speaking of the purpose to be served by this, he merely said that in an inflamed or irritated part the nerves bring about vascular dilatation, probably because "a broad and rapid stream" of blood is of service in such a case. Such a rapid stream must result "if the small arteries of the irritated part are dilated while all others are contracted." It seems to me that Lovén was only thinking of the phenomena which follow upon the irritation of a part by blisters and such-like things. The idea arrived at by me, quite independently of Lovén, long before I had seen his paper,* differed from this. I thought that, whenever the nutrient changes in a part are so affected that a greater supply of blood is needed, the vaso-inhibitory nerves of the part are thrown into action so as to dilate the bloodvessels of the part; so that the vascular dilatation ascribed to increased *vis a fronte* is really the result of the influence of vaso-inhibitory nerves. That this is so I was led to believe from observing the following facts regarding the gastric bloodvessels. These vessels receive their vaso-motor nerves from the splanchnic. The vaso-inhibitory and excito-vaso-motor nerves for the stomach are contained in the vagi. When gastric juice is being secreted, the gastric bloodvessels are much dilated. If we divide the vagi during digestion, the gastric bloodvessels contract and remain contracted. Stimulation of the peripheral end of the divided vagus never dilates the bloodvessels. Stimulation of the central end can do this. I therefore concluded that during digestion the gastric bloodvessels are dilated by the action of vaso-inhibitory nerves. I have thus been the first to succeed in finding these vaso-inhibitory nerves in action, and to suggest the rôle which they seem to play in enabling the tissues to regulate the supply of blood needed by them. When the gastric vaso-inhibitory nerves are thrown into action in this normal way, there is no evidence whatever of the other bloodvessels of the body being thrown into contraction, as Lovén contemplated in his idea of the mechanism brought into play when a part is irritated. But if the tissues dilate their bloodvessels by influencing vaso-inhibitory nerves, what is the mechanism by which the activity of the vaso-motor centre is kept up so as to partially contract vessels when little blood is wanted by the tissue? Here is a great difficulty. There is no evidence that the tissue, when wanting little blood, stimulates the vaso-motor centre by acting through its excito-vaso-motor nerves. When do these nerves act, then? Does the action of the vaso-motor centre proceed immediately from the centre, or is it reflex? Further research is needed on this subject.

Appendix to Innervation of the Heart.

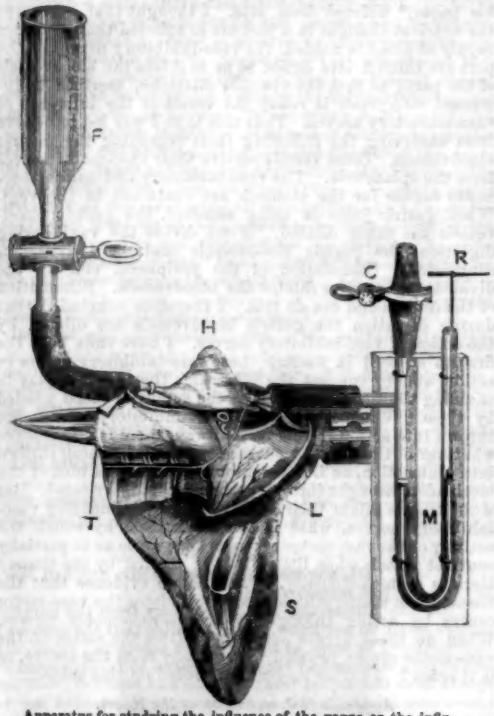
The actions of poisons upon the frog's heart may be conveniently studied by means of an arrangement described in Ludwig's *Arbeiten* for 1870, by Dr. Joseph Coats, of Glasgow. The arrangement (Fig. 52) was specially intended for assisting in the study of the influence of the vagus upon the heart's movements, but it is well adapted for researches on the influence of poisons. The frogs must be strong ones. English frogs are not well suited for the purpose. The following is the manner in which the animal is prepared for the experiment:—1. Destroy the brain and spinal cord by thrusting a pin down the cerebro-spinal canal. 2. Remove an oval or V-shaped flap of skin from the front of the sternum. 3. Remove the sternum. 4. Open the pericardium fully. 5. Lift up the apex of the heart and put a double ligature round a small vein that passes between the dorsal aspect of the heart and the pericardium. Tie in two places, and divide the vein between the ligatures. 6. Cut away the pericardium. 7. Tie a glass canula in the inferior vena cava. 8. Tie the superior vena cava. 9. Tie another canula in the left arch of the aorta, and ligature the right aortic arch. 10. Take a glass pipette and carefully fill both canulæ with fresh serum from rabbit's or cat's blood, so as to exclude all air-bubbles. Drive a little serum through the heart to keep it well nourished. 11. Cut the frog through below the liver. Remove the liver. Make a slit in the stomach and pass a pointed glass rod or tube through the mouth, œsophagus, and stomach. 12. Connect the aortic canula with the manometer, and the other canula with the funnel (see Fig. 52), and permit some serum to flow through the heart. Then dissect out the vagus if desirable. The serum requires to be often renewed, as the heart soon uses up the pabulum contained in it.

The arrangement of the apparatus represented in the figure was intended for the study of the influence of the vagus upon the heart. The chief use of the apparatus, however, is to study the action of poisons upon the heart and its nerves. For this purpose the heart may be removed

* Ludwig's Arbeiten, 1867.

from the body altogether; a portion of the vagus, sufficiently long to permit of its easy irritation, should be left. When the heart is excised, the sinus can be irritated more

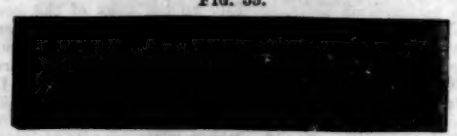
FIG. 52.



Apparatus for studying the influence of the vagus or the influence of poisons upon the frog's heart.—M, Mercurial manometer connected with aorta. R, A pin for scratching a trace upon a blackened cylinder. C, Clip upon a piece of caoutchouc tubing. H, Heart. L, Lower jaw. S, Skin. T, A glass tube thrust through the œsophagus. F, Funnel with stopcock. This is filled with serum from rabbits' blood, and being connected with a nozzle in the inferior vena cava, serum can be introduced into the heart when required. The sympathetic nerve is seen lying alongside the vertebræ. The vagus is seen extending between the heart and the angle of the jaw. (Slightly altered from Coats: Ludwig's *Arbeiten*, 1871.)

readily when required. When the influence of a poison is to be observed, it is added to the serum of rabbits' blood. After tracings such as that represented in Fig. 53 have

FIG. 53.



Tracing taken from a manometer in connexion with the ventricle of a frog's heart (Fig. 52). This tracing is taken from an unpoisoned heart.

been obtained from the heart supplied with normal serum, poisoned serum is placed in the funnel, and is permitted to flow through the heart. For example, suppose we feed the heart with serum containing nicotine. We should find that while irritation of the trunk of the vagus fails to retard the heart's action, the retardation takes place on irritating the sinus of the heart. This results from the terminal portion of the inhibitory part of the nerve mechanism in the heart having escaped the paralysing influence of the poison. If atropine be given instead of the nicotine, irritation of the vagus trunk is as powerless to affect the heart as in the case of nicotia palsy; but in the case of atropia, irritation of the sinus does not inhibit the heart, because the peripheral terminations of the inhibitory apparatus are palsied by atropia.

ON A

CASE OF DEFECT OF SPEECH FOLLOWING A RIGHT-SIDED CONVULSION.

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IN the "Mirror" of THE LANCET, March 18th, 1871, is a brief note of remarks I made on cases of temporary loss and defect of speech with certain epileptiform seizures (epileptic aphasia). The following case, there referred to, was reported by Mr. Stephen Mackenzie. It is not often that one has the chance of observing a patient who talks badly soon after an epileptiform seizure, and therefore this case has great value. In most cases the defect after the fit, so far as one can learn from the patient's friends, is slight, or the accounts we receive are very vague. The great merit of Mr. Mackenzie's report is that it is a faithful record of what actually took place, and possesses infinitely more value than if he had contented himself with mere statements as to the nature of the defect. I have, however, one critical remark to make on it. The patient was not asked to write during the continuance of the defect of speech; but notwithstanding this omission, the report is the most valuable one I possess of the manner of talking after a one-sided convulsion. Hence it may seem most ungracious of me to draw attention to the omission; but I need not hesitate, for the reporter, knowing thoroughly well the importance of investigating the writing powers of patients who have defect of speech, would himself, were he publishing the case, be certain to draw attention to his omission. As mentioned in the "Mirror," those fits in which speech is much affected usually start in the right cheek, but it must be admitted that occasionally there is temporary defect of speech when the fit begins in the hand. In the following case it was only ascertainable that the fit affected the right side.

Martha Faughty, aged seventeen. Her name is given because it is possible that the frequent use of the word "forty" may, so to speak, have been determined by the fact that the similarly sounding word, Faughty, would be one of the most automatic in her vocabulary. Mr. Mackenzie begins his report by alluding to trouble she had had from a wrongful accusation. The patient was a healthy-looking woman, and, as will be seen later in the report, no evidence of organic disease was discovered in the heart or kidneys. The rest of the report is in Mr. Stephen Mackenzie's words.

"Nov. 13th, 1870.—Her uncle says that the patient visited him to-day. During or after tea she had what he calls a fainting fit—that is to say, she turned very pale, and seemed to lose, at least partially, her consciousness, not answering when spoken to, and being unable to swallow water. She was laid down, and when a little recovered her uncle proposed to her to go out, thinking the open air would revive her. He got her into the street by supporting her, and whilst walking along she had a fit. He says that the head was drawn down to the right shoulder, the mouth was drawn to the right, and that her right arm was drawn up towards her head and stiffened. He spoke to her, but she could not answer him. He got her into a cab and brought her to the hospital. On her way there she vomited. The nurse in the receiving-room noticed that 'her mouth was drawn,' and that she kept her right arm semi-flexed. When I saw her she was able to walk into the women's dressing-room. She kept her right arm bent so that the hand came to about the waist, whilst the left arm she carried naturally. Her face was very pale, but there was no difference between its two sides. Eyes natural; pupils large, probably not abnormal. I asked her to put out her tongue. She did so readily. It was clean, and not bitten. I then asked her if she was in pain. She said, 'Yes, sir.' When I asked her where, she again said, 'Yes, sir.' When asked what was her name, she said 'No.' When desired to place either of her hands in mine, she did so with each equally well. I then asked, 'Where do you live?' She replied, 'Quite Chris.' I said, interrogatively, 'Quite Chris?' and she replied, 'Twenty Chris.' I then again asked her her name. She replied, 'Thank you, sir.' 'How old are you?' 'Thank you, sir.' 'Are you cold?' 'Yes, sir.' 'Have you had your dinner?'

'Yes, sir.' 'Have you been sick?' 'Yes, sir, having tea-c.' 'Have you any brothers or sisters?' 'N-e-c-k' (spelled rapidly). 'What is to-day?' 'N-e-c-k.' 'Is it Sunday?' 'N-e-c-k.' 'What was yesterday?' 'C-k.' 'What did you have for dinner?' 'Oh, n-e-c-k.' 'How did you get to your uncle's to-day?' 'Oh, any length.' 'When did you leave your situation?' 'Oh, when you like' —(correcting herself) 'Oh, when you will.' 'What is your mistress's name?' 'Oh-n-c.' 'Has she any children?' 'No-c.' 'What is your master's employment?' 'Oh-n-c.' 'Have you been to church to-day?' 'Oh-n-c.' 'What church?' 'That's all.' 'How long have you left it?' 'Oh, altogether yet.'

"Her articulation was clear. She did not seem annoyed at being asked questions, nor at her own replies; and, with very few exceptions, she did not attempt to correct herself. She laid herself down on the couch at full length. She was sent up to bed.

"When visited about half an hour after in the ward, I said, 'What is your name?' She replied 'Martha Faughty.' 'How long have you been in service?' 'Forty years.' 'Where does your master live?' '40, Clerkenwell-green.' 'Where does your father live?' '40, Clerkenwell-green.' '40, Clerkenwell-green?' '41, Clerkenwell-green.' 'What had you for dinner?' 'Forty.' She then answered 'Yes' to several consecutive questions, and then 'No.' 'What are your wages?' 'Forty pounds.' 'How much is that a month?' 'Four pounds.' 'Count twelve.' She did so readily without mistake. 'What is twice twelve?' 'Twenty-four.' 'What is twice forty?' 'Twenty-two.' 'How many pennies are there in a shilling?' 'Twenty.' 'How many threepenny-pieces in a shilling?' 'Sixpence.'

"Her upper extremities were very cold, but the trunk was warm, and the skin dry. She had perfect sensibility and power in both legs, and knew right from left when touched. Feet warm. Perfect sensibility of upper extremities, and could place either hand in mine when asked to do so. Tongue clean, and protruded in middle line. Left pupil slightly larger than right. The difference was extremely slight. Pulse 104, excessively small and feeble, so much so that it was with difficulty found. Respiration 18, almost entirely abdominal, but not at all laboured. Temperature: right axilla, 97·8° F.; left, 97·8°. Heart and lung sounds normal.

"Louis Mackenzie held up his fingers, and asked how many there were. Sometimes she answered correctly, and sometimes incorrectly. She did not seem able to calculate, for when he held up seven fingers she said 'eight'; and when he asked her how she made that out, she said, 'five before, and two, that's eight.' Though generally right as to the number, she made mistakes as to the addition, as 'five and one is nine.'

"Nov. 14th.—(The following notes are by Mr. Louis Mackenzie).—She recognises me on coming to her bedside, and laughs on my asking her several questions. She answers with perfect ease and accuracy. She says that she woke up this morning about 4 o'clock, and wondered where she was. She states that she went to her uncle's yesterday about 4.30 P.M., having dined at 3. She had a cup of tea at her uncle's, and a small slice of bread and butter. She had swallowed three or four damson stones at her dinner with her pie. She was sick soon after tea, and they took her into the wash-house. Soon afterwards she felt sleepy, and then she remembers nothing more, except that her uncle put his hat on the table. She remembers that we asked her many questions last night, but she does not remember answering at all. She 'remembers listening to all we had to say,' but she said very little herself. She remembers my saying, 'You see she does not know when I hold up my fingers.' Pulse 96; respiration 18; temperature, right axilla 99° F., left 98·8°. Has no pains in the head. No abnormal sounds to be heard at the heart. Urine: specific gravity 1030, acid; no albumen, no sugar.—Evening: Got up for a short time this afternoon, but had to lie down again.

"15th.—Slept well. Tongue clean; appetite good; bowels freely open after an aperient. When she got up to-day she felt giddy, and had a shivering, although she was warm. No nausea nor vomiting. Has no pain in the head, but has pain in her back of an aching character. This is probably connected with menstruation, as she has 'seen nothing' the last five or six weeks. There is a crop of herpes labialis. She cannot see distinctly, as atropine has been put into her eyes. This will perhaps account for her giddiness when up. There are no abnormal ophthalmoscopical appearances. Pulse 92. Respiration 28. Temperature: right axilla, 98·6°; left axilla, 99·4°.—Evening: She states that about midday she gradually became very hot, and then broke out into a sweat. There had been slight shivering in the morning; but no distinct rigor nor cardiac murmur. Pulse 96, small but regular. Respiration 18; vesicular murmur is heard all over the chest. Temperature: right axilla, 97·4°; left axilla, 98·8°. Nothing wrong can be felt in the rectum, uterus, or vagina.

"16th.—Says she has an 'awful pain' in the back. Has been perspiring very freely through the night. Pulse 96. Respiration 22. Temperature: left axilla, 98·8°; right axilla, 98·4°.—Evening: She states that she is very hot, and perspires more than ever. Pain in her back worse than ever. Some vesicular spots about the left nostril, which are painful. No sickness. Feels thirsty; tongue clean and moist. Pulse 92. Respiration 20. Temperature in left axilla, 97·2°.

"17th.—Evening: Pulse 104. Respiration 20. Temperature: right axilla, 99°; left axilla, 98·8°. In less pain, and feels stronger.

"18th.—Says she feels much better. Began to menstruate this morning, when the pain left her back. When she gets out of bed she feels cold, and has 'pins and needles' in both legs. Pulse 84. Respiration 20. Temperature: left axilla, 98·2°; right axilla, 97·6°.—Evening: Pulse 84. Respiration 20. Temperature: left axilla, 98·2; right axilla, 97·2°.

"19th.—'Pins and needles' gone. Extremities cold. Pulse 100. Respiration 18. Temperature: right axilla, 99·6°; left axilla, 99·9°.

"21st.—Menstruation ceasing. Went out."

In March, 1871, she was again seen by Mr. Stephen Mackenzie; she had remained well.

What the illness she had on recovery from the nervous seizure was I do not know. It is possible that the case may be considered by some as hysterical or emotional, especially as the poor woman had very good reason to be depressed in spirits from the unjust treatment she had received; but the convulsive seizure, so far as the description enabled me to judge, is not such as occurs in hysterical women, and is like those which occur from disease of the brain. A convulsion which affects one side of the body must, I presume, depend on local changes of some kind; and I infer that the location is the region of the corpus striatum. What those changes are there is no evidence to show. Granting the reality of the seizure, it is obvious that there was a sudden discharge of nerve-tissue; but we cannot say by what *pathological* process the local change permitting that discharge was brought about. It may be supposed to depend on embolism or thrombosis; but there is no evidence to support this conclusion. In most cases of convulsion beginning unilaterally there is no evidence to show the nature of the pathological process from which the "discharging lesion" results.

Manchester-square, Dec. 1871.

TREATMENT OF CONICAL CORNEA BY REMOVAL OF THE TOP OF THE CONE.

BY C. BADER,
OPHTHALMIC ASSISTANT-SURGEON, GUY'S HOSPITAL.

THE favourable results obtained by the operation of removing the top of the cone in conical cornea must justify the publication of the following cases *in extenso*. The first case was operated on in 1863.* Since then, up to August 1871, nine cases have been treated in the same manner: in seven cases the left eye, in one the right, and in one both eyes were operated on.

The Operation.

1. Place the patient on a bed as for extraction of cataract, and bring him thoroughly under chloroform.

2. Keep the eyelids open with a stop-speculum, so as to

* See page 192 of my book on the Natural and Morbid Changes of the Human Eye.

press upon the eyeball as little as possible, and fix the eyeball with the forceps.

3. Immediately before commencing the operation, ascertain the position of the top of the cone by turning the eye to be operated on in different directions, while strong light is thrown upon the cornea with a two-inch convex lens.

4. The subsequent steps of the operation, however they be taken, should tend to remove the top of the cone (the entire thickness of the cornea), so as to cut an opening through the cornea into the aqueous chamber. This opening, somewhat oval-shaped, is from one-twelfth to one-sixteenth of an inch in its longest diameter; it was measured immediately after removal of the apex of the cone, after escape of the aqueous humour, the cornea having collapsed and being in contact with the iris. The pupil, in all cases, was opposite the opening in the cornea; the surface of the lens could be seen bulging into the area of the pupil. In the cases in which the thread was used, the latter caused an indentation in the crystalline lens while passing across the area of the pupil.

5. *Removal of the top of the cone.*—A small curved needle, armed with fine white or black silk or with silver wire (or a gilded, small, sharp hook), is thrust through the cornea in its horizontal diameter, close to the portion of cornea we wish to remove. The point of the needle, after piercing the cornea, is carried horizontally across the aqueous chamber to a spot opposite the point of entrance, and again thrust through the cornea close to the portion of cornea we intend to remove. The aqueous humour escapes before or after passing the point of the needle through the cornea the second time. The needle or sharp hook is left in the cornea until the top of the cone has been removed; it helps to protect and keep back the crystalline lens. The portion of cornea (the top of the cone) situated in front of the needle is then removed as best we can. This part of the operation is somewhat difficult, the cornea being transparent or nearly so, extremely thin and flaccid, and the iris and lens being in contact with the cornea. The head of the needle is held in one hand, and with a cataract-knife, or with a sharp, narrow, lancet-shaped knife, an incision is made through the cornea (a small flap incision, as in flap extraction for cataract). Having made the incision, the needle is let go, the small flap seized with an iris-forceps, and the rest of the cornea (of the cone) removed with the knife or with scissors.

6. *Closure of the wound (opening) in the cornea.*—If a sharp hook or a needle without thread has been used for transfixing the cone, it is withdrawn after removal of the cone, and the wound left open. The eyelids of both eyes are then closed, kept bound up and cool with wet lint, and the patient kept in bed for three days; on the third day the use of the eye not operated on is permitted, while the eye operated on is kept bound up until all redness has subsided. If a needle, armed with silk thread, has been used, the needle, after removal of the cone, is drawn out gently by the second opening in the cornea; so that the thread, while passing across the aqueous chamber, the surface of the iris, pupil, and crystalline lens irritates those parts as little as possible. The opening in the cornea is closed by tying the thread, as is done when uniting the margins of a wound by a suture. The suture is tied tightly. If it should give a little before completing the knot, it does not signify. The cornea, by closing the suture, is thrown into numerous folds. This folded condition continued in an extreme degree in one case for nearly four weeks. Having united the wound, one end of the thread is cut off close, the others left about a quarter of an inch long, so as to assist when removing the suture. Both eyes are kept cool and bound up with wet lint. The patient remains in bed. The suture is removed on the appearance of slight chemosis and swelling of the eyelids. (See cases.)

7. *Removal of the suture.*—The patient being rendered insensible (by methylene), the lids are kept open without pressing upon the eyeball, the surface of the cornea is well cleared from mucus &c., and the long end of the suture drawn away from the cornea, so as to stretch the suture, and the latter cut through and withdrawn. After this, the lids of both eyes are again carefully kept bound up with wet lint. The use of the eye not operated on is permitted on the third day after removal of the suture. The operated eye is kept bound up, and the lint cool, until all redness of the eyeball has subsided, or nearly so, when an artificial pupil is made.

8. Any other mode of destroying the apex of the cone in conical cornea—for instance, by the galvanic cautery—would, I believe, answer as well as abscission of the cone.

Disadvantages of the Operation.

An opaque spot in the cornea, from where the cone had been removed. The patients were told that there would, after the operation, remain a small white speck on the eye, but that nothing except an operation could improve sight. None of the patients complained of the disfigurement, and all were pleased with the amount of vision obtained.

The necessity of giving an anæsthetic repeatedly. For removal of the suture, and for the artificial pupil, methylene is quite sufficient.

Advantages of the Operation.

In extreme cases of conical cornea a greater improvement of sight is obtained than by any of the known modes of treatment.

No untoward accident occurred in any of the cases.

The after-treatment, after removal of the suture, is very simple. The patient need only be seen at great intervals.

The conical cornea in all cases completely disappeared, and gave way to an abnormally flat cornea.

Cases.

1. O. M——, aged twenty-four, female, delicate, thin. Conical cornea in both eyes; cone of the left eye opaque. Iridesis had been performed in left eye in 1862, and iridectomy on both in 1864, without result. Left eye unable to recognise letters, or to guide herself. Lately attacks of ophthalmia, photophobia, increased prominence of the cone.—Sept. 28th, 1864: Chloroform. Left eye—removal of the apex of the cone; closure of the wound by a silver-wire suture.—Oct. 4th: Suppuration of the cornea round the wire suture; removal of the suture; the corneitis soon subsided.—Nov. 5th: Both eyes kept bound up for one week, and the operated eye for six weeks. Left eye, dense central corneal opacity, of about the size of a pupil of medium dilatation; no trace of cone; iridectomy inwards and downwards.—Feb. 9th, 1865: No trace of cone; tells time on watch at eight inches.—August, 1871: No trace of cone; the left eye, as regards vision, is now the best of the two.

2. M. M——, aged thirty-four, female, thin, delicate. Conical cornea in both eyes; opacity near the apex of left cone; right near-sighted; left the same, with amblyopia; recognises No. 40 of Snellen with difficulty at one inch. A large crescentic atrophy is seen in the choroid at the outer side of the left optic disc.—Feb. 6th, 1868: Chloroform. Left eye—removed the apex of the cone (cornea extremely thin).—29th: Some ciliary redness, with slight intolerance of light, and watering; central corneal opacity; no trace of cone; left the hospital.—April 24th: Iridectomy inwards and downwards.—Oct. 3rd, 1871: Left eye—central corneal opacity; no trace of cone; cornea very flat; time on watch at 3″; 200 at 5′.

3. G. C——, aged thirty-seven, male, thin, delicate. Always slightly near-sighted; the last few years the left eye had been failing more.—March 21st, 1870: Both cornea conical and transparent, the left most; with left eye recognises time on watch at about one inch.—April 25th: Von Graefe's operation performed on the left cornea; touching with caustic was discontinued, the patient being unable to attend regularly.—May 9th, 1871: Removal of apex of cone of the left cornea; one suture inserted.—July 18th: Left eye, iridectomy inwards.—November 17th: Right eye, − 7; recognises No. 70 of Snellen at 5′. Left eye, + 10; recognises 50 of Snellen at 5′. For work and reading gave spectacles with − 7 for the right, and + 10 for the left, eye. In this case an extreme degree of myopia has been changed into one of hypermetropia of $\frac{1}{17}$.

4. Y. D——, aged thirty-five, male, delicate, thin; sixteen years ago had some form of inflammation in left eye; sight of this eye failing since then. Right eye more near-sighted the last twelve months.—May 18th, 1870: Left eye—cornea transparent, conical; a slight opacity is seen at the apex of the cone when examined with a convex lens. Recognises 200 (Snellen) at 1′. Right eye—slight conical cornea; 70 of Snellen at 20′. Left optic disc appears very distorted. Left eye not improved practically by calabar, atropia, or similar re-

medies.—24th: Cut off apex of cone (under chloroform) from left cornea; one suture inserted.—27th: Suture removed; cornea quite clear, but thrown into folds; immediately after removal of suture cornea assumed a smooth good curve, with an uneven loss of substance, resembling an ulcer, at the spot from which the cone had been removed.—29th: Slightly bulging uneven opacity and ulcer from where the cone had been removed; slight redness, no pain, and good aqueous chamber. Patient left London, keeping the operated eye bound up and using the fellow eye for work.—Aug. 12th: Left eye—central corneal opacity of the size of a moderately dilated pupil; no trace of conical cornea; pupil dilates well under atropia; iridectomy inwards and downwards.—Aug. 23rd, 1871: Left eye—no trace of conical cornea; small central corneal opacity; the optic disc of natural shape and well seen; reads 70 (Snellen) at 20′; does the same with a convex lens of 24 inches; the sight of this eye is still improving. In this case we see an extreme degree of myopia with amblyopia, owing to conical cornea, changed into a hypermetropia of one-twenty-fourth.

5. J. R——, aged thirty-seven, thin, delicate; both eyes failed at the age of nineteen; does all his work with the right eye.—Aug. 4th, 1870: Right eye recognises 200 of Snellen at 20′; left eye does not recognise 200 at 1′. Both optic discs are visible, but appear very distorted; both cornea are conical, with a small opacity at the apex of the left cornea.—June 3rd, 1871: Chloroform; removal of apex of cone of left cornea; an opening of about the size of a small pupil was thus made into the cornea; it was closed by one suture; this caused the cornea to be thrown into large folds, which diverged from the suture. Very sick all day after the operation.—8th: Much pain and swelling of eyelids; cornea clear and much folded; iris in contact with cornea; chloroform; suture removed.—26th: Slight chemosis and swelling of lids; painless; cornea clear, except where suture had been; there is an opacity; the cornea is still very much thrown into folds; iris in contact with cornea.—Aug. 24th: Curve of cornea good; large central opacity; good aqueous chamber; a small piece of the suture, which had been left in the cornea, hidden by pus, was removed.—27th: Left eye—iridectomy inwards; bleeding into aqueous chamber. Oct. 27th: The optic disc, well visible through the iridectomy pupil, appears much distorted when viewed through some, regular when seen through other parts of the cornea. Patient states that never before the operation has the sight for distance been as good with the operated eye as it is now. The patient is still under observation. It will be remarked that the folded state of the cornea, and the contact of the iris with the cornea, persisted for more than six weeks.

6. S. P——, aged sixteen, female, delicate, thin; became near-sighted five years ago, left most; iridectomy upwards performed elsewhere without result; right eye recognises No. 50 of Snellen at 70′, left eye No. 200 at 8′.—April 17th, 1871: Chloroform; apex of cone removed from left cornea.—21st: Opaque matter occupies the spot where the apex of the cone had been.—28th: Much intolerance and watering; opaque matter disappeared; slightly bulging vesicle in wound; good aqueous chamber.—Aug. 12th: The bulging vesicle has become opaque; left hospital.—Sept. 11th: Iridectomy inwards and downwards.—Oct. 2nd: Left eye recognises 200 of Snellen at 3′; with 8 convex recognises 70 of Snellen at 12′, and letters of IV. at 1′. The cornea is very flat, with a central opacity. Thus an extreme myopia has been changed into a hypermetropia of one-third. One is inclined from the above to infer a peculiar shape of the crystalline lens.

7. G. M——, aged twenty-two, female, fair, stout; three years ago some kind of general illness (fever), with ophthalmia in both eyes; this was followed by great pain in the head and by impaired sight, especially of the left eye.—Feb. 6th, 1871: Both cornea transparent, conical, left most, with a large shadow thrown by the cone; both optic discs as to colour appear healthy; right eye with −20 recognises 70 of Snellen at 20′; left eye does not even recognise 200 of Snellen close to the eye.—June 8th: Left eye—chloroform; removal of the apex of the cone.—Oct. 8th: Iridectomy inwards and downwards.—Nov. 9th: Left eye—no trace of cone; cornea very flat; central opacity; vision improving; 200 at 20′ with +10, time on watch at 6″.

8. W. S——, aged twenty-four, female, delicate, thin; near-sighted as long as she remembers; extreme conical cornea in both eyes; the cones transparent; tells time on watch with difficulty at 2″; is not able to work; no concave lenses are of use.—Aug. 4th, 1871: Chloroform; removal of apex of right cornea; an opening the size of a pin's head cut into the cornea; *no suture*; bandage over the right eye.—28th: Left cornea operated on in the same manner; *no suture*; bandage for five weeks, then shade.—Oct. 16th: Both eyes no trace of cone; small faint, central corneal opacity; central round clear pupil; tells time on watch at 16 inches.

THE

BOWEL LESION OF TYPHOID FEVER; ITS NATURE AND TREATMENT.

BY T. J. MACLAGAN, M.D.

IN April, 1871, I published in the *Edinburgh Medical Journal* a paper "On the Nature of the Intestinal Lesion of Enteric Fever," in which expression was given to views considerably at variance with those usually entertained on that subject, but which were the result of years of careful and minute observation of the symptoms and course of that malady. Subsequent observation has tended only to confirm me in the opinions then expressed.

To the general features of the disease I shall not specially refer. I wish only to call attention to the bowel lesion—to the ulceration of the small intestine which accompanies typhoid fever so invariably that it is regarded as the "anatomical sign" of the disease.

This lesion consists in inflammation and ulceration of the agminated and solitary glands of the small intestine. These glands are scattered over the last few feet of that portion of the bowel, increasing in number as we pass downwards, until at the extremity of the ileum they are so numerous and closely aggregated together that but a small part of the mucous membrane remains free from them. They are imbedded in the submucous tissue, and covered over by the mucous membrane; they have no external opening, but are blind, ductless glands. The solitary ones are also found sparsely distributed over the large intestine, diminishing in number the further we pass down from the cæcum.

The nature and function of these glands in a state of health have been matter of some difference of opinion: some have supposed that they are secreting cells, which periodically burst and discharge their contents into the intestine; others regard them as absorbent glands, which have no share in the production of the intestinal contents, but are somehow engaged in the elaboration of the fluid which is ultimately carried away by the lacteals. The latter view is the more generally adopted, and is, no doubt, the correct one. The appearance which these glands present under the microscope is very similar to that presented by the medullary cords of the lymphatic glands; and Brücke succeeded in injecting them through the lacteals—a proof of their connexion therewith. Their position in the intestine also supports this view; for if they were secreting cells, and if their function consisted in supplying to the intestine something requisite for the digestion of its contents, they would be situated high up in the gut (as are Brunner's glands and the bile and pancreatic ducts), where their secretions would be brought into play and utilised at an early period of the process of digestion. The sphincter ilei, or band of muscular fibres at the extremity of the ileum, probably has for its function the narrowing or temporary occlusion of the outlet of the ileum, and consequent detention of the chyle in contact with these glands.

The period of life at which they are most active is adolescence and early manhood. By the time that middle life is reached they begin to diminish, and continue to do so until in old age they quite disappear. This fact would indicate that their special function is to absorb from the chyle and send into the system through the lacteals something which is requisite for the building up and strengthening of the frame—something which is necessary for maintaining the vigour and elasticity of youth, but which is not so much required after the frame begins to undergo those slow and

gradual changes which ultimately terminate in the feebleness and sterility of old age. Suppose that the function of these glands were to absorb from the chyle and supply to the blood some substance which the reproductive organs appropriate to themselves, and which is necessary to enable them to perform their special functions, we should at once have a sufficient reason why these intestinal glands, coming into notice in childhood, should be particularly abundant and active in adolescence and early manhood, and should gradually dwindle away after the vigour of life has passed. We find that such is their history; that their period of activity is also the period of activity of the reproductive organs; and we not unreasonably infer that there may be some connexion between the two.

The bowel lesion of typhoid fever consists in inflammation, sloughing, and ulceration of these agminated and solitary glands. What is the connexion between this local lesion and the febrile symptoms? Is the constitutional disturbance a mere symptom of the bowel disease, or is this a result of the circulation in the blood of the poison of the malady?

The generally entertained opinion is that the bowel lesion is the result of nature's efforts to eliminate the poison from the system; that the deposit which takes place in and around the glands is specific in character; and that its deposition in and elimination by these glands is the means of ridding the system of the poison which produced the febrile symptoms. The sole facts in favour of this view are—(1) that inflammation of these glands is an invariable accompaniment of typhoid fever, and (2) that the discharges from the bowels largely contain the poison of that disease.

Such a view of the nature of this important lesion I believe to be altogether erroneous, and that for the following reasons:—

1. The glands are possessed of absorbent functions only, and are in no sense eliminatory.

2. Even if they did possess eliminatory functions, it is very improbable that the work of elimination would be thrown to so large an extent on the glands at the lower extremity of the ileum, while those high up escaped altogether.

3. Were they eliminatory, they would not probably be destroyed (as they are in typhoid fever) while performing a duty so necessary to the well-being of the body.

4. Were the elimination of the poison by these glands nature's way of relieving the system, the deposition in them of the morbid material ought to be followed by an amelioration of the general symptoms of the disease. We know that the contrary holds good, and that the bowel lesion increases rather than diminishes the general febrile disturbance.

5. The opinion that the poison is thus eliminated is at variance with the fact that mild cases of typhoid fever do occur in which the glandular lesion terminates in resolution, and in which the so-called morbid deposit is reabsorbed into the system.

For the above reasons I reject the views generally entertained regarding the nature of this lesion, and hold that it is a specific inflammation of the agminated and solitary glands consequent on the action of the poison of typhoid fever on these glands, and bearing to that disease the same kind of relationship that inflammation of the tonsils does to scarlatina, and inflammation of the mucous membrane of the respiratory passages to measles.

I believe also that the sloughs and discharges from the ulcerated glands carry the poison of typhoid fever, and are capable of conveying that disease from one person to another, just as the discharges from the mouth and nostrils in scarlatina and measles are capable of transmitting their peculiar poison. Nay, I go a step farther, and maintain that the contagious nature of these discharges is not done full justice to by a simple recognition of their power to convey typhoid fever from one person to another, but that *their propensity to evil is coincident with their existence, and that they can, and often do, impart the specific inflammation of which they are the product to the unaffected glands with which they come in contact in their course down the intestine.* I hold, in short, that in typhoid fever there are two forms of bowel lesion, a *primary* and a *secondary*: the primary lesions commence coincidently with the onset of the febrile symptoms; the secondary result from the inoculation of healthy glands by the discharges from those primarily involved.

The grounds of this belief are various, and may be briefly stated as follows:—

1. It is consistent with all pathological analogy that the discharge from a specifically inflamed organ applied to a like organ in a state of health should there reproduce that specific inflammation to which it owes its origin.

2. Examination of the individual lesions shows that they are of two kinds—one in which the deposit is scanty and the mucous membrane granular in aspect, and another in which the deposit is more abundant and the mucous membrane smooth: to the former Louis gave the name of *plaques molles*, to the latter that of *plaques dures*. Besides this difference in appearance and in amount of deposit, there is also a difference in the mode in which they ulcerate. In the *plaques dures* the process commences in the interior, and the mass sloughs out bodily; in the *plaques molles* the process of destruction commences by a superficial ulceration which eats its way inwards through the mucous and submucous coats, and may even penetrate the muscular and peritoneal. No explanation of this difference has ever been given. The real distinction between them I believe to be, that the *plaques dures* are the primary lesions, the *plaques molles* the secondary. The explanation of the difference in their external characters is, that in the primary lesions (*plaques dures*) the inflammatory product is slowly deposited in the glands and surrounding submucous tissue, and continues to be deposited for eight or ten days before sloughing takes place; while in the secondary lesions (*plaques molles*) the direct application of the virus and putrid discharges sets agoing a smart inflammatory action which terminates in ulceration before there is time for the deposition of sufficient inflammatory products to give them the external appearance of the primary lesions.

3. The glands of the lower part of the ileum suffer more than those higher up. When considering the normal physiological action of these glands, it was noted that they became more numerous the further down the ileum we went. This peculiar distribution has for its object to secure that no waste takes place; while the contraction of the sphincter ilei muscle retains the chyle in the lower part of the small intestine, the presence of so many absorbent glands in that locality provides against the passage into the large intestine of any quantity of the nutrient material which ought to be taken up in the small. The contents of the ileum in a state of health consist of such nutritious ingredients of the chyle as have not yet been absorbed, epithelium, and the excretory matter which goes to form the fæces in the large intestine. In typhoid fever they consist of the same materials *plus* the sloughs and discharges from the affected glands situated higher up. In a state of health the numerous glands in the lower part of the ileum, in the exercise of their absorbent functions, take up the nutrient material remaining in the chyle, and the rest of the iliac contents pass into the colon. In typhoid fever they take up the same material, but along with it they absorb the virulent discharges proceeding from the affected glands situated higher up. The discharges from the secondary lesions are as potent for evil as those from the primary. Hence it is that the lower part of the ileum suffers so much more than the upper; for the further down the small intestine we go below the highest affected gland, the greater is the amount of virus in a given quantity of the contents of the bowel, and the less the likelihood of any gland escaping. On careful examination of the diseased intestine after death, it is found that "the transition between the diseased and healthy glands is usually rather abrupt, and proceeding downwards after the first diseased patch all are usually diseased" (Murchison). This fact can be satisfactorily accounted for in no other way than that which I have indicated. The greater abundance of these glands at the lower extremity of the ileum doubtless leads to a correspondingly greater frequency of primary lesions in that locality; but for the explanation of the fact that a healthy patch is rarely, if ever, found below a diseased one, it seems to me absolutely necessary to recognise the influence of an agency which acts from above downwards, and which comes into play at the upper margin of the disease. Such an agency can be no other than the sloughs and discharges from the affected glands, which, in their passage down the gut, tend to inoculate those below, but cannot affect those above the highest point at which they are formed. An apparent objection to this view, that the ulcers near the

ileo-cæcal valve are as far advanced as those higher up, is explained away by the fact that the secondary lesions ulcerate much more rapidly than the primary, and are in a week as far advanced in their pathological course as those primarily affected a fortnight earlier.

4. The extent of the intestinal lesion, as revealed by examination after death, bears no relation to the severity of the abdominal symptoms during life. The severity of the abdominal symptoms is judged of very much by the amount of diarrhœa. In cases in which the bowels are moved several times a day the sloughs and discharges are carried off as quickly as they separate, and thus do their minimum of harm. Where constipation exists they are retained, and so have an increased chance of inoculating healthy glands. Where constipation exists there may thus be produced an amount of local disease greater than would have existed had the abdominal symptoms been more marked, and the discharges carried off more speedily.

When considering the difference between the primary and secondary lesions it was noted, *inter alia*, that in the primary lesions the process of destruction commenced in the interior, the diseased gland forming a slough which separated bodily,* while in the secondary the destructive process commenced on the surface, and proceeded inwards. As a consequence of this mode of formation of the ulcers, the primary lesions seldom extend beyond the base of the glands—that is to say, they involve the mucous and submucous coats, reaching, but not penetrating, the muscular. In the secondary lesions the ulcerative process commences on the surface, and proceeds inwards, rapidly destroying the mucous and submucous coats, but does not have the same reason for stopping there, and hence is more apt to invade the muscular and peritoneal coats. In this way is to be explained the fact that perforation most frequently occurs in cases in which, up to the moment of its occurrence, the abdominal symptoms have been by no means marked. This accident, indeed, often happens in cases in which such symptoms have been altogether awanting. How is this? It seems very like a paradox to say that perforation, the acme of all that is severe in the bowel lesion, is most common in cases in which the evidence of that lesion is almost or altogether awanting. Paradoxical as it appears, it is nevertheless true. The explanation of this fact is that the perforation is the result, not of a primary, but of a secondary lesion; for if in these mild cases the number of glands primarily involved is comparatively small (as I believe it is) there remains a larger number of sound glands liable to inoculation; and as the risk of perforation is directly as the extent and number of the secondary lesions, it follows that the probability of that accident occurring as a consequence of such a lesion bears some relation to the mildness of the attack. It is to be noted, too, that perforation generally occurs low down in the ileum, where we have seen that secondary ulceration is most abundant and most active.

Hæmorrhage, too, when it occurs to any extent, usually proceeds from a secondary ulcer. So long as the mucous and submucous coats only are involved profuse hæmorrhage is not likely to occur, there being in them no vessels sufficiently large for the production of such a result. When the muscular coat is invaded, however, the risk is much increased, for between the transverse and longitudinal fibres there run vessels of considerably larger size than those found in the submucous tissue. These vessels run a great risk of being opened into by an ulcer which eats into the muscular coat. This it is which imparts to even a slight hæmorrhage occurring late in the case an importance which would not attach to it at an earlier period. It indicates a still progressive secondary ulcer, and there is no saying where such an ulcer may stop. It may open into other vessels, or involve the peritoneum in its destructive course.

The time when the sloughs are separating is generally, I had almost said universally, regarded as the period of greatest danger, so far as the bowel lesion is concerned. Experience shows that the danger from that lesion increases the longer the fever continues, and that from the beginning of the fourth week onwards it is at its greatest. Now it can scarcely be supposed that a slough, which is formed during the second week (as most if not all of them are), which is necessarily of limited size, and which is seated in a very vascular structure, should take a fortnight or three weeks to separate. Yet such a conclusion is the inevitable outcome of the generally entertained opinion. The position seems to me quite untenable. I believe that the whole process of inflammation and destruction of the glands primarily involved, and separation of the resulting sloughs, never occupies more than three weeks, and that the prolongation of the disease beyond that period, and all the consequent risks and dangers, are attributable to the formation of secondary lesions, the distinguishing characteristics of which are the rapidity with which they are formed and the greater tendency which they show to extend beyond the submucous coat. I believe that hæmorrhage seldom, if ever, occurs before the primary sloughs begin to separate, and that the bleeding which occasionally takes place at that time is rarely a source of danger. It is generally very slight. Dangerous hæmorrhage, as already explained, comes on late in the case, when the primary sloughs are detached, and when the secondary ulcers are still pursuing their destructive course, threatening the larger vessels of the muscular coat.

In the vast majority of cases in which death is attributable to the intestinal complication, the fatal event is the result of the destructive ulceration of the secondary lesions.

When a patient dies of typhoid fever within the first fortnight, death is due to the intensity of the poison, and not to the abdominal mischief. In most cases in which the bowel lesion is the source of danger, the urgent symptoms are developed late in the case—seldom before the middle or end of the third week, generally during the fourth or fifth, by which time it may be presumed that the sloughs have separated from the primary lesions; the exacerbation of the local mischief being due to inoculation of fresh glands by the poisonous discharges of those primarily affected.

If the discharges are so virulent, why, it may be asked, do they not affect the solitary glands of the large intestine? In the majority of cases these glands do escape. This is attributable chiefly to their small size and sparse distribution, it being evident that the risk of a drop of virus bearing discharge* lodging over a small solitary gland in the capacious large intestine is very much less than the chance of its lodging over a good-sized patch in the attenuated small intestine; in the latter, too, the discharges are retained for a time in contact with the glands by the action of the sphincter ilei, while in the former they are in constant motion.

(To be concluded.)

* This is a result of the mere mechanical pressure of the effusion on the vessels which supply the glands. The vessels are so pressed upon that the glands die for want of nourishment. A consideration of their mode of vascular supply will readily explain this.

A CASE OF

ABDOMINAL PREGNANCY; RUPTURE OF THE GREAT INTESTINE; CÆSAREAN OPERATION AND CURE.

BY J. H. ADAMS, M.D.,
SURGEON TO THE SOROCABA HOSPITAL, BRAZILS.

THE following is such a rare case (if ever it has been met with by any of my surgical brethren) that I cannot refrain from communicating it to the widely-circulated LANCET, being sure that it will be of interest to the medical profession.

Blandina de Barros, a mulatta, aged thirty, married, to all appearance of a sound and well-constructed frame, was admitted into the hospital 13th October last, being, as she herself thought, between the seventh and ninth month of pregnancy. She complained of great bodily suffering and pains through the whole of her system, particularly at the pit of the stomach and loins. When she completed the ninth month and expected to be delivered, her pains ceased, and the whole of her body became œdematous to an alarming degree.

Previous to her admission into the hospital she had consulted two Brazilian doctors, who diagnosticated her disease to be ovaritis and metritis, and treated her with

* I regard it as proved by the observations of M. Chauveau and Dr. Sanderson that contagium is particulate.

iodine and mercury, &c., and externally with leeches, blisters, and embrocations for nearly four months, until the poor creature became quite a skeleton, without, however, any reduction in the supposed tumour. At last she had such a bad smell from the body that no one would attend her. She had also an ulceration and fistula near the navel, which discharged matter and fæces; likewise, for about a month, a discharge of pus from the rectum in great quantity.

In this state she was sent to the hospital. I examined the swelling or tumour, and it appeared to me that the woman was right about her pregnancy. I explored the uterus and found it empty. I made an injection through the fistula near the navel into the abdomen, and with light pressure the liquid returned immediately, bringing with it matter and fæces. I thought I could detect some foreign body at the mouth of the fistula. I took a pair of small forceps and extracted it, and, to my surprise, the radius of the child in a few seconds appeared. I extracted also the ulna. Another slight compression brought nothing but matter. The greatest volume of the tumour being more than four inches to the right further down, I proposed to the patient to operate, and she consented.

At 2 P.M. the same day I administered chloroform with some reluctance, considering her weak state (pulse 50), and performed the Cæsarean operation. Having made an incision six inches long, and cut through the walls of the abdomen and peritoneum, I found there was a complete adherence with the walls and no cavity. I tried to pass my finger into the opening, but found a resistance every way. I cleaned away with a sponge the clots of blood and some liquid, and made a minute examination. I found quite a fabric of cells and foreign membranes attached to the walls of the peritoneum, cellular membranes and a fibrous network with vessels forming a second diaphragm, enveloping the intestines and also keeping the fœtus from view. The ovaries were quite shrivelled up. I could not attempt such an enormous dissection, so I determined to separate what I could by the finger to get at the fœtus. Having done this, I extracted the child in a state of complete decomposition or putrefaction. The body was intact, but it had parted from the head, hands, and feet. I found the head, the bones of which were complete. I could not find the hands or feet in the cavity. I concluded that, as the radius and ulna had been discharged, so the tarsus and metacarpus and phalanges might have passed by the rectum, as she had for upwards of a month discharged a great quantity of matter before being brought into hospital. Having cleaned out the cavity with a sponge dipped in chlorinated soda, camphorated oil and compound tincture of benzoin, I made an exploration by the uterus, rectum, and incision. The uterus was in its normal state, but did not communicate with the abdomen except through the Fallopian and ovarian tubes. Both ovaries were shrivelled up and almost atrophied. The rectum contained three fistulæ, communicating with the cavity of the abdomen, through which the matter and fæces were discharged. The large intestine had ruptured, ulcerated, and separated. I could not detect the end, being buried in the mass of cells. The whole of the intestines were completely hidden in newformed membranes. The sphincter appeared to have lost its contractile power, the anus being quite shrivelled up. The intestine appeared to have parted near the anal orifice. On the left side of the ovary was a fistulous opening, which afterwards proved to be a point of the intestine. The state of the uterus, the vessels, and foreign membranes that I met with in the peritoneum, observed through the incision, proves to me that the pregnancy had been abdominal. Having closed the wound and put on the bandages, I ordered the patient three grains of opium and one ounce of aromatic infusion for the night.

The next morning she told me that she had not slept so well and passed such a good night for many months.

Oct. 14th.—Pulse 55, very weak. Has had chills; complains of great exhaustion. Ordered port wine and quinine. Great discharge of matter, mixed with fæces, from the incision.

From this date she gradually improved, till the 10th of November, when the incision had almost cicatrised, and the fæces were discharged through the rectum by the anus. She complained of a little pain in the canal, but walked about and wished to leave the hospital.

Sorocaba, Brazils, 15th November, 1871.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum alioram, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

GUY'S HOSPITAL.

(Cases under the care of Dr. WILKS.)

ON the 4th inst. we paid a visit to the clinical wards of this hospital, and accompanied Dr. Wilks (who is at present in charge of the wards) while he made the round of his patients.

The Relative Advantages of Stimulants and Bloodletting; the tricuspid bruit.—Dr. Wilks discussed at some length the treatment indicated for a case of *emphysema and bronchitis* which had just been admitted. The patient was a thin old woman of about sixty years. She was intensely cyanotic; the small veins of the face were enlarged and distended, the jugulars standing out in bold relief. She was lying supported by pillows, with her head high, gasping for breath. There was next to no expansion of the chest. The feet were swollen, the abdomen was large and contained fluid, and the pulse was small and weak. She complained of feeling cold and exhausted, and begged for a little wine. The majority of practitioners, said Dr. Wilks, would at once accede to her request, and, because her pulse was feeble, would order her a considerable quantity of alcohol. This was not his idea of scientific treatment. The pulse was weak because the blood, being unable to pass the right side of the heart, entered the left ventricle in only small quantities. The blood was dammed back in the veins, and throughout the body there was a condition of extreme venous engorgement, which no amount of alcohol would relieve. The real scientific treatment for the case would be, he believed, to relieve the venous system by taking some blood. The jugular vein was by its swollen condition asking to be opened. Ultimately the patient was ordered to be bled to five or six ounces. There was no doubt, from the general condition of the patient, and especially from the state of her jugular veins, that there was considerable dilatation of the right side of the heart. There was undoubtedly regurgitation through the tricuspid orifice, and yet no murmur was audible. This was quite in accordance with Dr. Wilks's experience, that no amount of regurgitation through this orifice gave rise to a bruit unless there was disease of the valves as well. There was a considerable quantity of fluid in the peritoneal cavity, and there was little doubt that there was some cirrhosis of the liver. Very many of the patients had cirrhosis, and it was highly probable that the stimulants taken to relieve the breath were often answerable for this. It was most important to give alcohol with precisely the same care and exactness as other drugs. Dr. Wilks had a patient up stairs (a boy) to whom he was giving spirits of wine in drachm doses, and he was doing very well upon it. It was highly probable that the plan of universal bloodletting pursued by our forefathers was, on the whole, productive of less evil than the modern plan of universal stimulation.

We have since learnt, through the kindness of Mr. C. J. Oldham, that this patient, as well as another in a similar condition, experienced immediate and marked relief after six ounces of blood had been taken from the arm.

The Diagnosis of Thoracic Tumours; the assistance to be derived from the laryngoscope.—Another case which presented itself for diagnosis was that of a man past the prime of life with a frequent *laryngeal cough*. There was considerable expectoration of watery fluid with some mucus. There was dulness in the right infra-clavicular region, with some doubtful pulsation in the second right interspace. The air did not enter the left lung so freely as the right. There was some difficulty of swallowing, but the mouth and pharynx were to all appearance healthy. Auscultation gave no decided information. The second sound of the heart was accentuated. The great probability here was that we had to deal with a

thoracic tumour, possibly an aneurism; but the facts were hardly sufficient to warrant a certain diagnosis. We could learn something from the matter expectorated. Secretion from the bronchial tubes or larynx would cause cough; and, on the other hand, repeated cough would cause secretion. In the former case we should expect to find the expectoration purulent, and in the latter we should expect it to be watery, with a slight admixture of mucus, as was the case here. The character of the cough and the expectorated matter would not lead one to suppose that there was any organic change in the lungs or larynx. The laryngoscope would be of considerable assistance. If the larynx were found healthy, this would be in favour of thoracic tumour; and if one of the vocal cords were found paralysed, this probability would be greatly increased. The sphygmograph might also give assistance. We should possibly find the force of the pulse on the two sides different, or we might find it delayed upon one side. The accentuation of the second sound of the heart was in favour of aneurism.

CHARING-CROSS HOSPITAL.

THE following series of operations, some of which illustrate what have been called the conservative principles of surgery, cannot fail to interest our readers.

EXCISION OF THE ASTRAGALUS.

(Under the care of Mr. HANCOCK.)

The patient, a strong, healthy man, aged forty-seven, was admitted on September 18th. While at work he had fallen off some steps, giving his foot a twist inwards as he alighted. The astragalus of his right foot on his admission was found to be dislocated forwards and outwards. The bone was twisted nearly upside down, and was fractured as well at its lower part. The skin was tightly stretched over the astragalus, but there was no wound.

Mr. Hancock was at once summoned to the patient, and resolved to remove the dislocated bone, which he did by making an incision directly over it. The wound was brought accurately together by wire sutures, and covered with a pad of lint soaked in a weak watery solution of carbolic acid. The limb was placed on a back splint, with a foot-piece, and swung in Salter's cradle, the wound being kept constantly moist (with the carbolic-acid solution) by means of a bottle and syphon attached to the cradle. The first dressings were not removed till November 13th. On removal of the pad a small amount of pus escaped. The wound was found completely filled up, the only trace of the operation being a narrow line of exuberant granulations marking the situation of the original incision. This patient's satisfactory progress has been really remarkable. He suffered no pain after the first forty-eight hours, and he has slept well and had a good appetite from the first. At present the wound has completely healed, and the limb is encased in a plaster-of-Paris bandage. The shape of the foot is excellent, and firm pressure on the heel causes no pain or inconvenience. We may remind our readers that the mortality after this operation, when performed in cases like the present, has been stated by M. Broca (as quoted by Mr. Holthouse, in Holmes's "System of Surgery") to be 25 per cent.

EXCISION OF THE WRIST.

The patient, a woman aged forty-seven, sprained her wrist about a year ago. From that time she has not been able to use it. On her admission to the hospital, on November 7th, it was swollen, reddened, tender, painful, and perfectly useless. There was a free discharge of pus from three or four small openings on the radial side of the joint. After admission, and notwithstanding treatment of various kinds, the condition of her joint got gradually worse, and Mr. Hancock determined to excise it. This was effected on December 9th, in the following way. A semilunar incision over the dorsum of the joint was first made, beginning in the "snuff-box" between the extensor tendons of the thumb, and ending between the carpal extremities of the fourth and fifth metacarpal bones. The flap of skin thus marked out was reflected towards the hand, the extensor tendons of the thumb and forefinger being drawn to either side by an assistant; the joint was opened in this situation, and a copious gush of pus ensued. A pair of small necrosis forceps was then introduced into the joint, and the carpal bones, which were all extensively diseased, were removed one by one. The diseased ends of the radius and metacarpal bones were next removed by cutting pliers. The wrist was wrapped in lint soaked with weak watery solution of carbolic acid, and a splint was applied on the palmar surface of the limb, extending from the elbow to the tips of the fingers. This patient has made excellent progress up to the present time. She has suffered very little pain, the discharge has been trifling in amount, and her constitutional condition has undergone marked improvement. The joint is still supported by a splint. The wound is granulating healthily, and has nearly healed.

REMOVAL OF BOTH SUPERIOR MAXILLÆ.

(Under the care of Mr. CANTON.)

The early history of the case will be found in Mr. Christopher Heath's work on the Diseases and Injuries of the Jaws. The patient was a married woman thirty-five years of age, suffering from a myeloid tumour affecting the left superior maxilla, and in 1864 Mr. Canton removed the jaw with the tumour. The specimen was exhibited to the Pathological Society, and a careful microscopic examination showed it to be myeloid. In June of last year she again presented herself at the Charing-cross Hospital with a large tumour filling up the antrum of the right upper maxilla, and extending forwards, causing a projection of the upper lip. Mr. Canton accordingly removed the remaining upper maxilla. The operation was perfectly successful and presented in itself no points of particular interest. The edges of the incision were brought together with silver sutures, and no dressing of any kind was used, the mouth being simply kept perfectly clean and sweet by the frequent use of Condy's fluid. Within a week of the operation she left her bed, and within three weeks she was discharged from the hospital. Five months later the patient wrote to say that she had enjoyed perfect health since she had left the hospital. On microscopic examination the tumour proved to be simply fibrous. It had been growing for a year before removal. Notwithstanding that a great part of the framework of the face had been taken away, and that a portion of the orbital plate was removed at both operations, there was remarkably little deformity of the face. The patient had lost all power of muscular expression, but beyond this there was nothing to attract attention, except a slight falling in of the upper lip on the right side. There was no falling in of the nose, the raphe of what was the roof of the mouth deriving great support from a firm pseudo-palate which had formed of cicatricial tissue after the first operation. The cicatrices of the incisions were scarcely noticeable as they followed the natural lines of the face.

EXCISION OF THE KNEE.

The patient who has been subjected to this operation is a puny little girl six years old. She was admitted on the 1st August last. Her left knee-joint was swollen, painful, and fixed at nearly a right angle. There was an opening on the inside of the patella, from which there was a continuous slight discharge of pus. The child was much weakened and exhausted by the constant pain and discharge. Every attempt was made, by a liberal supply of nourishment &c., to improve the health of the patient before operating. This, however, signally failed, and she slowly lost ground till October 14th, on which day the joint was more swollen and painful than on admission, and the discharge from it had increased; the patient's appetite had failed, and her general health was even worse than on admission. Mr. Canton therefore determined to excise the joint, which he did by means of an H incision. The joint was found to be completely disorganised. After the operation the limb was placed on an interrupted back splint, with a foot-piece, there being a movable trap-door corresponding to the popliteal space. The transverse incision was brought together with silver sutures, but the lateral incisions were left open to allow of the free drainage of the joint. The dressings consisted simply of a few layers of lint laid across the knee kept constantly moist with a weak watery solution of carbolic acid. The limb was only moved once (to change the splint). Nine weeks after the operation, when the splint was taken off, the joint was found firmly anchylosed and the wounds nearly healed. The patient never had a bad symptom, but showed a marked improvement a very few

days after the operation. At present her appearance is a marked contrast to what it was three months ago. She has got fatter, has some colour in her cheeks, enjoys her food, and, from being querulous and fretful, has become one of the liveliest children in the ward.

EXCISION OF THE ANKLE.

The patient is a man of healthy appearance, aged thirty-one. His ankle has given him trouble for eight years; and on his admission to Charing-cross Hospital in October last the joint was swollen, tender, and utterly useless, as he was unable to bear the slightest pressure on the foot. There were two small openings on the outer side, through which there was a constant slight discharge of pus.

On December 9th Mr. Canton excised the joint, following as closely as possible Mr. Hancock's directions for that operation. The disease was found to involve the whole of the articular surfaces entering into the joint—tibia, fibula, and astragalus,—but not to have extended to any other of the tarsal bones. The diseased portions having been removed, the leg was bandaged to a back splint with a foot-piece, and swung in Salter's apparatus. The wound was covered with a piece of lint soaked in a weak watery solution of carbolic acid, and kept constantly moist with the same solution by means of a bottle and syphon attached to the cradle. The man's progress has been highly satisfactory, and at no time have there been any constitutional symptoms. His appetite has been uniformly good from the first day after the operation.

REMOVAL OF THE TONGUE.

The patient upon whom this operation has been performed is a healthy, cheerful old woman, aged sixty-two, presenting no sign of disease, on her admission on the 2nd of November, excepting an unmistakable epithelioma (ultimately confirmed by the microscope) growing from the right side of her tongue, about an inch from the tip. The growth, which was as big as a large hazel-nut, caused her no trouble except the inconvenience arising from its presence.

On the 18th of November Mr. Canton removed the tongue. An incision through the integuments was first made from the symphysis of the jaw to the hyoid bone, and a second, meeting the first at right angles, was made along the ramus of the jaw, from the symphysis to the anterior margin of the masseter. In making the second incision, Mr. Canton first pulled up the skin, so that the cicatrix there, when the skin was relaxed, should be hidden by the ramus of the jaw. In making this second incision, Mr. Canton was also careful to avoid encroaching upon the attachment of the muscles to the symphysis at its anterior, or the facial artery at its posterior, limits. The mucous membrane beneath the tongue was then divided, and through this orifice the tongue was forcibly pulled by a pair of strong forceps. The noose of a many-stranded wire écraseur was then slipped over the tongue, and passed well behind the growth. The écraseur was then gradually tightened, and the greater part of the tongue removed. There was absolutely no bleeding from the tongue itself. The recovery of the patient was rapid; and on the 21st December she was discharged in good health, with ability to talk with tolerable distinctness. Three days after the operation the patient was seized with an attack of facial erysipelas, which, strange to say, did not affect any of the wounded surfaces, and from which she completely recovered in about five days. She never had any hæmorrhage from first to last. The mouth was constantly washed with Condy's fluid.

For the notes of the above cases we are indebted to Mr. Slack, house-surgeon.

SUNDERLAND INFIRMARY.

STRANGULATED HERNIA.

(Under the care of Mr. E. A. MALING.)

THE notes of the following cases were taken by Mr. Hopgood, house-surgeon.

J. C——, aged twenty, a sailor, had been ruptured for some years. The hernia became strangulated on Nov. 14th, 1870, while he was making some effort aloft. He was treated in various ways (with purgatives &c.) till Nov. 20th, when he was admitted to the infirmary. The patient was found to be the subject of an oblique inguinal hernia. He was very feeble and exhausted, and vomited constantly. The bowels had not acted for six days. An operation was performed, and the hernia was reduced, the sac being opened; and within half an hour the bowels acted freely. The patient's recovery was rapid and almost without interruption, and he was discharged cured on Dec. 26th.

The points of interest in this case are—(1) that the bowel had not become gangrenous, although the hernia had been completely strangulated for nearly a week; and (2) that the bowels acted so rapidly after the reduction of the hernia.

COMPOUND FRACTURE OF THE ARM, WITH RUPTURE OF RADIAL ARTERY AND SOME OF THE FLEXOR TENDONS.

(Under the care of Mr. G. B. MORGAN.)

The patient was a sailor aged twenty-seven, who sustained a severe crush of the arm, breaking the radius just above the wrist and the ulna a little higher up. There was a wound two inches and a half long in the front of the arm, communicating with the fracture; and within the wound could be seen "several tendons divided." There was no pulsation in the radial artery. The patient could move his thumb and index finger slightly, but had lost all power over the other digits. The wound was dressed with carbolised oil, and the arm placed between splints, the fingers being flexed over a ball of cotton-wool. On the fifth day hæmorrhage occurred from the wound, and recurred at intervals till the eighth day, when a small vessel was found bleeding, and was ligatured. After this his recovery was uninterrupted, and he left the hospital at the end of six weeks, with the bones united and the wound healed, and with ability to rotate the hand and move all the fingers.

CASHEL WORKHOUSE INFIRMARY.

WE have received from Dr. Laffan a very interesting account of the use of Dieulefoy's aspirator for the purpose of diagnosis in a case of supposed abscess of the liver. We regret that we are unable, from want of space, to publish all the details with which Dr. Laffan has favoured us, but the following summary embraces, we think, all the points of special interest.

The patient was a soldier, thirty-six years of age. He had been a hard drinker, and had served in India, whence he had been invalided home with abscess of the liver. He refused, however, to submit to any heroic treatment for his supposed abscess, and left the military hospital and managed to do the work of groom till he was struck down by typhus fever, after which he was admitted to the Cashel Infirmary, on the 29th of March last. He had pain and some bulging in the hepatic region, as well as some pneumonia of the right lung. His symptoms continued with little change till the beginning of May, when he passed a large quantity of black blood from the bowels. Towards the end of June he was seized with a severe rigor, and this was followed by vomiting, which continued up to the end of July. Taking the history which the patient distinctly gave of the diagnosis of abscess which had been made, together with certain doubtful symptoms which he now presented pointing to the same diagnosis, Dr. Laffan determined at once and for ever to settle the question of abscess or no abscess, because if an abscess were present the evacuation of it would hasten the disappearance of the lung affection, which was possibly secondary. A series of explorations were made with Dieulefoy's aspirator, between the 19th of September and the 10th of October. The smallest trocar was used, and the punctures were made in the following situations:—1st. Between the seventh and eighth ribs, in a line with the angle of the right scapula; 2nd, between the sixth and seventh ribs, in the line of the right nipple; 3rd, between the sixth and seventh ribs in axilla; 4th, between the ninth and tenth ribs, in a line with the spinal broder of the scapula; 5th, between the tenth and eleventh ribs, two inches nearer to the spine; and 6th, below the ensiform cartilage. In all these punctures the trocar was directed towards the mass of the liver. The result of the puncturings was negative; not a drop of pus was obtained on any one occasion. The man's health was not affected in any way by the explorations. After the negative result Dr. Laffan unhesitatingly came to the conclusion that no abscess existed.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JAN. 9TH, 1872.

T. B. CURLING, F.R.S., PRESIDENT, IN THE CHAIR.

A CASE OF COMPLETE RECOVERY AFTER REMOVAL OF THE BODY OF A CERVICAL VERTEBRA.

BY WILLIAM OGLE, M.D.,
ASSISTANT-PHYSICIAN TO, AND LECTURER ON PHYSIOLOGY AT, ST. GEORGE'S HOSPITAL.

IN this paper a case was narrated of which the following were the chief points:—A man, after suffering for some months from sore-throat, became out-patient at St. George's Hospital. It was found on examination that some bone was exposed at the back of the pharynx; but the patient suffered so little inconvenience from this that he could not be persuaded to become in-patient. The man's attention having been directed to the exposed bone, he got into the habit of fidgeting it about with his fingers, and at last loosened and removed it himself. On maceration, the piece thus removed was found to consist of the antrum of one of the cervical vertebræ and a small portion of the antrum of a second one. After remaining for some months out-patient, the man was persuaded to enter the hospital. He was placed on his back, and his head fixed; and remained in this position six months. During this time he expectorated numerous spicules of bone, and what appeared to be portions of fibro-cartilage. The lesion eventually healed completely; and the man at the present time—two years since the lesion—is able to occupy himself with the heaviest farm-labour, and to amuse himself with field-sports. There is no visible deformity of the neck, nor any other sign of what has occurred except a slight stiffness in rotating the head. The piece of bone was exhibited.

Mr. HENRY LEE thought it would be highly important to know more of the early history of the case; and believed that the explanation of its successful issue was to be found in its syphilitic character. In syphilitic cases, in which the periosteum was primarily and for a long time affected, it was not unusual to see a great development of new bone in the thickened membrane, and he conceived that in this case such thickening and eventual ossification might have extended to the bodies of the adjacent vertebræ, and might have afforded support to the interrupted column. If the disease of bone had been of a strumous character, no ordinary powers of repair could have brought about recovery.

Mr. BRODHURST thought Mr. Lee's explanation insufficient. He passed his finger into the space from which the dead bone had been cast out; and he felt no trace of any new formation.

The PRESIDENT asked whether Mr. Lee meant to say that he thought there had been syphilitic disease of bone, leading to repair of bone.

Mr. HENRY LEE explained that he thought there had been syphilitic lateral periostitis leading to ossific deposit in the thickened periosteum.

Mr. SAVORY thought it was not necessary to determine between scrofula and syphilis. Mr. Lee's observations had struck him with much surprise; for if there was any dyscrasia which especially hindered the reproduction of bone it was syphilis.

Several of the Fellows addressed questions to Mr. Lee intended to shake his position, to which he nevertheless adhered; and much amusement was produced by the brisk sort of cross-examination to which he was subjected.

CASE OF TRACHEOTOMY IN WHICH THE TUBE, HAVING BECOME DETACHED FROM ITS SHIELD, ESCAPED INTO THE TRACHEA, AND WAS REMOVED BY A SECOND OPERATION FOURTEEN MONTHS AFTERWARDS.

BY JOHN W. OGLE, M.D., F.R.C.P.,
PHYSICIAN TO ST. GEORGE'S HOSPITAL;
AND
HENRY LEE, F.R.C.S.,
SURGEON TO ST. GEORGE'S HOSPITAL.

The patient, a man aged thirty-two, had been the subject of typhus fever in 1865. He recovered, but never afterwards felt thoroughly well, and about a year subsequently had an attack of laryngitis and bronchitis. Tracheotomy was performed, and the patient continued to wear the tracheotomy tube for three years, when the shield became detached. It was improperly reunited to the canula, and in another year's time it was again detached, and on this occasion the canula slipped into the trachea. A few weeks after this the patient was placed under Dr. Ogle's care in St. George's Hospital, suffering from great dyspnœa, and having the sensation as if the tube were situated on a level with the upper part of the sternum. Auscultation failed to help in deciding the position of the tube, and the patient refused to have chloroform administered with the view of search being made for it. He then left the hospital (September, 1870), and continued to go about, suffering from dyspnœa and irritation about the windpipe, until his symptoms became more urgent, and he was obliged to come to the hospital again on the 5th of November last. He said "he had coughed the tube up into the throat, and could feel it there." No time was lost. The patient was at once placed under the influence of chloroform, and as he lay upon his back tracheotomy was a second time performed, and two eroded portions of metal were taken by means of curved forceps from the trachea. The pieces were almost the length of a tracheotomy tube, and gave origin to the idea that the original tube had been bivalved. This, however, upon inquiry turned out not to have been the case. The pieces of metal had been eroded into their present shape while in the trachea. The pieces were shown to the Society.

A second case, which some years ago had occurred under the observation of Mr. Lee, was related. In this instance a boy had swallowed a fourpenny-piece. This was expelled without operation through the glottis during a fit of vomiting. In the observations made attention was drawn to the different modes of treatment likely to be required in cases of smooth or round bodies in the trachea, as in the last-mentioned case, and cases in which pointed or rough bodies had to be removed, as in the instance first recorded.

The PRESIDENT thought the rule of surgery was clear—that a foreign body in the trachea should be extracted by operation.

Mr. POWER said that smooth bodies, even of considerable size, might pass out by the natural passages. He described the case of an Irishman who had a pebble in his larynx. By putting the man on his face on a table, with his head low, and giving him a slap on the back, the pebble was immediately ejected.

Mr. COUPER mentioned a child who was brought to the London Hospital with a foreign body in the trachea. The surgeon who saw the case deferred operation, on account of the absence of urgent symptoms; but a paroxysm of dyspnœa came on in his absence, and he (Mr. Couper) opened the trachea at the request of the house-surgeon at a time when death seemed impending. The foreign body was a bean, and it passed up and down behind the tracheal opening during the respiratory efforts; but with some difficulty was seized and extracted. The patient died of pneumonia.

Mr. HOLTHOUSE mentioned having once permitted a pill to slip into his own larynx, and having ejected it immediately and without trouble. He also showed the pieces of a tracheotomy tube which he had himself extracted, under circumstances similar to those detailed in the paper under discussion.

Mr. THOMAS SMITH pointed out that children sometimes got acidulated drops into the trachea, and that these might safely be left to dissolve. Among other foreign substances that he had known to lie in the air-passages was a common dress-hook, the loops of which were directed downwards, while its bent extremity was hung upon one of the vocal cords.

Other cases were also mentioned by Dr. O'Connor, Mr. Henry Lee, and the President.

Mr. BRUDENELL CARTER thought that cases of the detachment of a tracheotomy-tube from its shield were to be prevented by using a well-made instrument. Instead of the tube and shield being imperfectly soldered at their junction, they should, when intended to be worn permanently, be made out of a single piece, and even electro-gilded at the angles, to protect the metal against chemical corrosion.

MEDICAL SOCIETY OF LONDON.

MONDAY, DEC. 18TH, 1871.

DR. ANDREW CLARK, PRESIDENT, IN THE CHAIR.

MR. THOMAS BRYANT made a communication and exhibited drawings illustrative of the process of cell-growth in the operation of skin-grafting. M. Reverdin, when he made his communication on this important subject of skin-grafting, propounded the following questions:—1. Was the skin graft an excitor of skin action? 2. Or were the cells themselves of the graft proliferated? Mr. Bryant contended that the grafts grew. The skin is prolonged from the graft; the borders also of the wound throw out growth. A white man was suffering from a large ulcer on the leg; a negro being in the hospital at the time, a small portion of his skin was transplanted; the ulcer decreased in size, and a piece of black skin, the size of a grain of wheat, increased very much in size. A little piece of black skin, which was well isolated, has assimilated to the white skin somewhat in appearance, having become paler in colour. It was an interesting question whether the black skin would become paler or white. The cicatrix in the black man was darker than the surrounding skin. The author thought the practice of transplanting from one person to another was objectionable; it was better to take the grafts from the patient, even in children. Some skin taken from an amputated leg was placed in warm water and used for grafting. The grafts so obtained lived, but little more; they did not assimilate with the tissues around, but remained mere grafts. It might be possible to inoculate cancer or syphilis. In a case of extraversion of the bladder, a skin graft lived, but nothing more; the mucous membrane did not become skin. An ingenious instrument for taking grafts was shown.

Dr. OGLE, of Derby, read a paper on "Preventive Medicine, or Medical Reform: not Parliamentary, but Particular and Individual." He then made the following suggestions:—1. That in charging patients the fee should be so much per annum for all ordinary work, the amount being left open, to differ according to circumstances; and that (2) charges per visit should be restricted altogether to extraordinary acts of service. Physic should, whenever possible, be supplied by druggists; if not, it must be charged for separately. He proposed further that the term "ordinary" should include all visits for which request had been made before a certain hour, varying for different families according to circumstances. It might also be understood that the doctor, in answer to such applications, should be at liberty to call, or even send a substitute, at any time in the course of the day most convenient to himself. On the other hand, "extraordinary" visits should be night visits, but of these only such as are specially requested; Sunday visits specially requested; and visits in obedience to messages to come "immediately" or at some particular time named by the patient. The doctor would then be emancipated from all the trading accessories of the profession which are now so galling; and his domestic comfort would be increased. Dr. Ogle proceeded to say that consultation practice in the country is not what it ought to be; that it is a reproach to our profession that consultations should be so seldom held, and that there should be so much mystery in holding them. The patient ought to have liberty to call in whom he pleases, and special provision should be made so that the second opinion might be formed independently, before the consultation proper was commenced. As to differences of opinion, they are not marks of ignorance, but the contrary.

A long discussion followed the reading of this paper, in which the President, Dr. Routh, Dr. Crisp, Dr. Gibbon, Dr. Ford Anderson, Dr. Brunton, Dr. Symes Thompson, and Mr. Davy took part.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 2ND, 1872.

MR. JOHN HILTON, PRESIDENT, IN THE CHAIR.

AFTER the reading of the annual report by Mr. Hulke, a notice of which has already appeared in THE LANCET,

A report on Mr. Sim's case of Diseased Liver was read, which stated that the liver in question was the seat of soft cancer.

MR. SIBLEY exhibited some excellent Photographs which had been sent to him by Mr. Bakewell, of Trinidad, of a case of Elephantiasis Arabum. In the West Indies it is only seen among the lower orders who go barefooted, and it is commonly believed to be due to cold.

Dr. GALTON could hardly accept this theory of causation (cold). He had seen a good deal of this disease in the East, and there it was as common in the scrotum, a part not likely to be much exposed to cold, as it was in the feet. He had found it readily curable by bandaging and pressure.

Dr. KELLY exhibited (for Mr. BRADLEY, of Manchester,) a specimen of a case of Syphilitic Disease of the Pharynx and Larynx. The patient had died in the County Gaol at Manchester. He sniffed a good deal, and could swallow only with great difficulty; but, owing to old disease of the lower jaw, it had been impossible to open his mouth sufficiently to make an examination of the pharynx. He died of hæmoptysis nine months after his admission to the gaol. After death the soft palate (which was composed entirely of cicatricial tissue) was found adherent to the posterior wall of the pharynx, completely shutting off all communication with the posterior nares, excepting by a small opening in the centre of this cicatricial curtain, which had resulted apparently from the ulceration of the uvula. There was no trace of the epiglottis to be seen. There was a large cavity in the lung.

The PRESIDENT mentioned a similar case which had occurred at Guy's Hospital. Tracheotomy was first performed, and then—life being sustained the while by nutritive enemata—the already existing hole was gradually enlarged by incisions and dilatation. This occurred five or six years ago. The patient is still alive, and wears the tracheotomy tube; she can eat a mutton chop without much difficulty. In these cases Mr. Hilton would always advise tracheotomy as the first step of treatment. He knew of one case where the incision of the palate was attempted before tracheotomy, and, the blood finding its way into the trachea, the patient was suffocated.

Mr. HULKE exhibited for Mr. HICKMAN a Green-pea (?) which had been removed from the lachrymal canal of a young lady who had been under treatment for a small abscess in the situation of the right lachrymal canal, which, when opened, exuded a greenish globular mass like a green-pea; and the patient stated that some months previously she had passed a pea into her nose for the amusement of a child, and that the said pea had disappeared. How the pea had managed to travel up the nasal duct into the lachrymal canal was more than Mr. Hickman would take upon himself to say. Mr. Hulke seemed very sceptical as to the real nature of the green mass, which was ultimately referred to Dr. Bristowe for careful examination.

Dr. GALTON exhibited a portion of Perforated Intestine from a case of typhoid fever. The main interest of the case consists in the fact that one of the perforations was through the apex of a diverticulum.

Dr. CLIFFORD ALLBUTT and Dr. WILKS both agreed that perforation might, and often did, occur, not only in mild attacks of fever, but also with slight special symptoms. Dr. Wilks remarked that when death occurred from typhoid we were never surprised at finding perforation, even though there had been no grave symptoms to indicate it during life. He thought that the duration of the fever given in text-books, of twenty-one to twenty-four days, was probably too short. A duration of five weeks, or more, was not uncommon, and many of the cases of relapse, with which all were well acquainted, were probably wrongly so styled.

Dr. KELLY exhibited an Ulcer of the Right Bronchus communicating with the pulmonary artery. The ulcer appeared to be syphilitic. The other evidences of syphilis in the patient were undoubted.

Dr. CLIFFORD ALLBUTT exhibited a series of microscopic sections from the cerebro-spinal centres, to demonstrate the pathological anatomy of Hydrophobia. The specimens were taken from the cerebral convolutions, from the central ganglia, the medulla oblongata, and the cord. Throughout all these centres were found the same morbid conditions, but in different degrees, and these were as follows:—1. Evidences of great vascular congestion with transudation into the surrounding tissues. In all the grey centres the vessels were seen in various degrees of distension, their walls in many cases being obviously thickened, and here and

there were seen patches of nuclear proliferation. There was a diminished consistence of some of the parts, particularly of the medulla. This seemed to be due to serous infiltration and soddening. 2. Hæmorrhages of various size, and in many places a refracting material was visible outside the vessels, due apparently to congulated fibrinous exudate. 3. Little gaps caused by the disappearance of nerve-strands which had passed through the granular disintegration of Clarke. In addition to these appearances in the nervous centres, an enlarged spleen had been found in both cases. The parts seemed to be affected in the following order as regards severity:—(1) medulla, (2) the cord, (3) cerebral convolutions, and (4) central ganglia. This was in accordance with the symptoms during life—viz., 1. Reflex irritability in the region of the medulla with no tetanic spasms. 2. Increasing irritability throughout the cord with semi-tetanus. 3. Delirium.

Mr. HULKE inquired as to the condition of the kidneys in these cases. In two cases of hydrophobia which had come under his observation the kidneys had been acutely inflamed. The affection of the kidneys in these cases, and the enlargement of the spleen in Dr. Allbutt's cases, pointed to blood-poisoning as the cause of the symptoms.

Dr. CLIFFORD ALLBUTT also exhibited a specimen showing Syphilitic Disease of the Small Arteries of the Brain. There were masses in the brain rather harder and rougher than the rest of the brain-tissue, and in these masses the arterioles were found enormously thickened, and the perivascular canals infected with gummatous matter.

Reviews and Notices of Books.

St. Bartholomew's Hospital Reports. Vol. VII. London: Longmans, Green, and Co.—The present volume of these reports is a very good one, and contains much that is both instructive and interesting, mingled, of course, with plenty of that kind of "padding" which we fear is inseparable from publications of this class. The best article in the volume is probably that by Mr. Thomas Smith "On the Treatment of Cleft Palate in Infants." This paper is full of valuable information, and contains many practical hints likely to be of great service in the performance of the delicate operations necessary for the relief of the condition treated of. It gives an account of the varieties of cleft palate, and then discusses at length the age at which an operation should be undertaken, the prognosis in the various cases, the instruments necessary for, and the minute details of, the operation itself. There are, in addition, short clinical histories of forty cases which have been operated upon by Mr. Smith. Among other good papers, we may mention two by Dr. Tuckwell "On Addison's Disease" and "On the Ringworm of Cattle," the latter of which we hope to mention at greater length shortly. The papers by Dr. Gee "On the Shape of the Head, looked at from a medical point of view," by Mr. Baker "On Ranula," by Mr. Savory "On the Treatment of Diseased Joints by Rest and Extension," and a short account by Sir James Paget of "A Case illustrating certain Nervous Disorders," will all be read with interest and profit. Appended to a paper "On Hæmophilia" there is this footnote: "In the 'System of Medicine' edited by Dr. Reynolds, the largest and latest representative of English medicine, there is no mention anywhere of hæmophilia; but this is scarcely surprising where acute tuberculosis has shared the same fate." Why the writer of this article ignores the fact that the book which he attacks is not yet completed we cannot tell. Should the editor of it contemplate the insertion in the forthcoming volume of an article on hæmophilia, a perusal of this paper may or may not help him in the selection of an author. The illustrations of the present volume are first-rate, especially the heliotype representation of Mr. Smith's gag, &c., and the chromo-lithographs of the fundus oculi appended to Mr. Power's report on the Ophthalmic Department.

The British and Foreign Medico-Chirurgical Review. No. XCVII. January, 1872. London: J. and A. Churchill.—The first paper in the present number is on a subject that will soon be uppermost—Sanitary Legislation. A short review of Spence's Lectures on Surgery is followed by another of a new work of its kind—namely, the Medical Reports of the West Riding Asylum. The article on Physical Degeneracy in the United States is interesting; that on the Physiology of Blood-crystals gives a short but good historical account of the development of the subject, from the first observation of blood-crystals by Hünefeld, in 1840, to the latest facts recorded by M. Preyer in his recently published volume on this subject. Dr. Anstie's and Prof. Eulenburg's late contributions to Neuralgia and Functional Nervous Diseases are favourably reviewed. Among the original communications is the continuation of a long article by Dr. G. Hamilton, of Falkirk, on the Proper Management of Tedious Labours, and a learned paper by Dr. Karl Hoffmann, of the University of Vienna, on the Recent Progress of Uroscopy; besides the usual Quarterly Chronicle. The volume is a fairly good one, if judged by the standard of those of late years.

The Prince's Illness: its Lessons. By BALTHAZAR FOSTER, M.D., M.R.C.P. Lond. Churchill.—Dr. Foster has done wisely in printing this lecture on the Prince's illness, and on the causes and prevention of typhoid fever. He pertinently asks why it is that 120,000 persons should be laid up with typhoid every year, and about 20,000 killed. In Birmingham, a comparatively healthy town, there are some 2000 cases of typhoid every year, and the loss of 300 lives. After alluding to epidemics of typhoid due to impure water, Dr. Foster quotes the case of Windsor as an illustration of the effects of sewer gas. With respect to the Prince's attack, he is of opinion that the conditions of Londesborough Lodge were quite sufficient to indicate the source of the fever poison. "The fact that three persons visiting Londesborough Lodge at the same time caught typhoid fever, and that others suffered from indisposition such as is constantly observed to follow exposure to sewage poison, forms a strong case as to the origin of the Prince's illness." Dr. Foster gives some interesting cases showing the reduction of mortality from typhoid fever following the adoption of improved sewer arrangements. At Salisbury the reduction was 75 per cent., at Stratford 67, at Croydon 63, at Merthyr Tydvil 60, at Ely 56, and at Warwick 52. Such evidence needs no comment. Dr. Foster draws attention to the defective water-supply of Birmingham, and to the absolute necessity of an improved sanitary administration.

Psychic Force and Modern Spiritualism. A Reply to the *Quarterly Review* and other Critics. By WILLIAM CROOKES, F.R.S. London: Longmans.—This pamphlet is a reply to some adverse criticisms upon the previous efforts of Mr. Crookes which appeared in the October number of the *Quarterly*. The author cannot be accused of not having the "courage of his opinions," for in the preface he boldly avows his belief in a hitherto unrecognised force. That spiritualistic phenomena are due to this new force is with him not a matter of opinion, but of "absolute knowledge." The article in the *Quarterly*, in our opinion, scarcely dealt with the subject in the best way, or from the best standpoints. The arguments, strong as they were, were old and somewhat the worse for wear. The *Popular Science Review* for this month has a careful article dealing with the subject, and in which the literary scalpel is applied with no sparing hand to Mr. Crookes and his experiments. It is to be regretted that a certain amount of personality appears to have been infused into the controversy.

THE LANCET.

LONDON: SATURDAY, JANUARY 20, 1872.

NOTWITHSTANDING the appearance in the newspaper discussion on the now famous Medical Declaration respecting Alcohol of more difference of opinion than is seemly or than really exists, we continue to believe that great good and very little harm will actually result. The unanimity of expression as to the value and indispensableness of alcohol in the treatment of disease must convince even teetotalers that it has great therapeutical uses; and the explicit opinion even of Mr. SKEY, that in health the less the consumption of alcohol the better, may induce people to use it sparingly and carefully. The idea that a charge is implied in the declaration against those members of the profession who have not signed it should be abandoned, as it is not borne out by the words, and has been distinctly repudiated. There is undoubtedly much to be said for confining such an expression of opinion to medical journals, where it can be duly discussed and appraised; but, on the other hand, alcohol is such a fascinating remedy, and the popular mind has such extravagant ideas of its powers, that the profession can only feel fortified by the publicity of the declaration in regarding the prescription of it seriously and with a leaning to moderation. The double character of alcohol as a social and remedial beverage makes a public discussion of its uses less unseemly than the public discussion of the uses of a mere drug would be. A very little knowledge of human nature will relieve us of the fear that, in consequence of the declaration, the remedy will be unduly neglected.

One other great advantage we hope for from the declaration. The public will learn to talk less fluently about debility as the essence of all disease, and about alcohol as the corresponding remedy for it. Debility is a very complex state, and requires for its removal a much more discriminating treatment than the generous administration of even the finest port. It may imply a want of air, or a want of food, or a want of exercise, or a want of rest, or a score of other wants besides that of mere alcohol, which are all conspicuous by their absence in the delightfully simple formula that nearly all diseases betoken debility, for which the prominent remedy is wine. Besides, there are many diseases which are not to be expressed by any such term as debility, the use of which not unfrequently implies a want of diagnostic care or skill.

It is very natural that Dr. ANSTIE, a pupil of Dr. TODD, who has studied the action of alcohol so earnestly, and with an exactness of observation which makes his authority very great, should be sensitive to any criticism of the merit of Dr. TODD in regard to the use of alcohol. But then he would admit that he applies, as we all know, very strict physiological tests to his own use of alcohol, which is all that the signataries of the declaration wish to impose upon themselves or upon other members of the profession. The two cases adduced by Dr. ANSTIE of two physicians who signed the declaration, one of whom "recently directed a lady patient in delicate health to drink wine to the verge of intoxication," and the other of whom recommended a gentleman fourteen ounces of brandy a day, who afterwards required his attendance for some form of alcoholism,—these two cases, we say, show perhaps the inconsistency of the physicians in question in signing the declaration, but they are a striking illustration of the need for it.

Having, then, regard to the spirit of the declaration, and remembering the great influence of our profession, without maintaining that it is couched in the most perfect terms, we regard it favourably and wish it well.

HAVING, in our last volume, brought to a close the Reports of our Commissioners on Night-nursing in the London Hospitals, it is desirable to draw attention to the general results; and in doing so we recur to the special points named in the first report.

1. *The character of the nurses employed on night-duty.* In the first place, it is satisfactory to find that the old, drunken, sleepy nurses of bygone times have disappeared. There is, nevertheless, a very marked difference in the general aspect and character of the nursing staff in different hospitals. The nurses of University College Hospital, in this respect, undoubtedly bear the palm; whilst those of the Holborn Workhouse were at the bottom of the scale. In all the best hospitals—as in Guy's, St. Thomas's, the Middlesex, and University—none but experienced nurses are allowed to take charge of the wards at night. Probationers are put on as night-assistants in special cases only. This should be an invariable rule; for, whatever the nature of the night-superintendence, emergencies must occasionally arise which tax the highest capacity of the night-attendant. The employment of pauper nurses on night-duty in wards where there are grave cases must be strongly condemned, especially where the structure of the wards does not admit of constant supervision by a paid nurse. In the workhouses generally more attention is required to be given to the accommodation for the nursing staff; for it is hopeless to expect good women to remain where there is very little comfort and no privacy. The night-nursing at the Bow and Stepney Asylum has been considerably improved since the visit of our Commissioners, and they have been invited to inspect the new arrangements. In one or two instances, we think, a small addition to the salary would enable the matrons to improve the character of the nurses very considerably.

2. *The nature of the supervision exercised.* We are entirely in favour of the appointment of a night-superintendent. When the night staff is very superior, perhaps no harm arises from the want of one; but we believe that the friendly visit of a superintendent will always be agreeable to the well-disposed nurse, and it is certainly a very valuable check upon the indifferent; whilst in a variety of cases two heads are better than one, and the division of anxiety is an immense relief. In every large hospital there should be such an officer.

3. *Numerical strength.* Taking the average, there should be a night-nurse to about twenty patients, with adequate

assistance when there are grave cases. The number must be increased if the wards are small, and it may be diminished somewhat if the nurses can readily call in the assistance of a neighbour without leaving the ward. It is important to notice the very different opinions which prevail in the children's ward at University College Hospital and in the Hospital for Children at Great Ormond-street. In the former there are four nurses and one sister to fourteen patients, and two of the nurses are always on night duty; at the latter there are two night-nurses for the whole establishment.

4. In our opinion there is a very general incompleteness in the arrangements for obtaining additional assistance in cases of great emergency, particularly in those hospitals in which the nurse has charge of several wards upon the same floor. In Ormond-street and at the German Hospital there is a bell; and at Stepney Asylum there are speaking-tubes, with whistles attached, which lead from floor to floor. We think that some such mode of communicating with the house-surgeon and night-superintendent ought to be adopted in all large hospitals. At St. Thomas's there is telegraphic communication between the wards and the treasurer's house, but for what purpose it seems difficult to say. It would be far more useful to connect the wards with the resident surgeon's and physician's rooms, since they are a long distance apart in some cases.

5. *Supplies of comforts.* In several cases the nurse requiring a little wine or brandy would have to arouse the house-surgeon, and he would have to give an order on the house-steward, who would have to get up to go to the stores. A certain quantity of all such comforts ought to be kept in each ward, and the key of it should be left with the nurse in charge. This arrangement is general in the best hospitals.

6. In cases of *delirium* the nurses were never permitted to employ restraint without the order of the resident medical officer. The subject has been so fully discussed that we need not do more than call attention to the admirable rule established at the Stockwell Small-pox Hospital—that every patient forcibly restrained shall have a constant attendant, to supply those numerous wants to which if he were unrestrained he could readily help himself.

7. *The hours of duty.* The practice of frequently changing the duty of nurses from day to night is condemned both by matrons and nurses. This practice is carried to its fullest extent at St. Bartholomew's Hospital, where the nurses are still on duty for twenty-five hours at a time. Although we were not permitted to visit that hospital, we met with several nurses who had been there, and they expressed themselves greatly in favour of less frequent change, on account of the difficulty of sleeping in the day-time and the great nervous irritability produced by insufficient rest. At Guy's and several other hospitals the night staff is quite distinct from the day; but, although there is some evidence that a few nurses prefer night duty, we are inclined to think that it is desirable to change them once a month, as it promotes a more active interest in the treatment of the patients, and enables the matron and sisters to see more of the general conduct.

8. There should be more definite instructions and responsibility as to the *ventilation of the wards at night.* This is supposed to be the duty of the house-surgeon in some hospitals; of the general superintendant in others; and in some it is left to the discretion of the night-nurse. This question of warmth and ventilation is too important to be regulated by guessing, but should be determined by self-registering thermometers. We cannot forbear to notice the excellent ventilation in the surgical wards at Guy's, and the particularly good arrangements for warming and ventilating the new sick wards at St. Luke's Workhouse, which were contrived by Mr. SAXON SNELL, who deserves very great credit for the sanitary arrangements of this building.

In conclusion, we met with no instance of complaint, but with numerous expressions of gratitude on the part of patients. We have in the nursing staff of the London hospitals and infirmaries a body of conscientious persons, who deserve a better recognition of their services than they have hitherto obtained. Day after day and in the still hours of night they pursue their useful calling, with an amount of self-sacrifice and generosity which merit our highest tribute of praise. To the noble ladies, to the kind sisters, to the skilled nurses, and to the zealous probationers whom we met with in the course of our unexpected visits, we bid adieu.

THE position of the unhappy gentleman now lying under sentence of death in Newgate is one that cannot fail to turn the thoughts of all minds towards the general questions involved in the term "homicidal frenzy," and towards what we may call the policy of the law in dealing with criminalities which, in themselves, seem almost to raise the presumption of insanity. "He must be mad," would be the first and almost instinctive exclamation of any who heard that a man of advanced age, of sacred calling, and hitherto of blameless life, had suddenly broken through all the restraints which these conditions impose, and had murdered, with what was described by counsel as "unnecessary violence," the wife with whom he had lived for many years on terms of apparent concord and affection. We say apparent, because it is manifest that the girl ELLEN PYNE, the only witness to the domestic relations of the deceased woman and her husband, was not a very acute observer; and also because many small indications, such as the scrap of Latin on the writing table, the passage from the "Life of Porson" quoted by a correspondent in *The Times* of Tuesday, and the letter published on the following day, tend to support the hypothesis that feelings of anger and of bitter disappointment were glowing beneath the thin crust of external decorum and conventional courtesy. Assuming something like this to have been the case, we are at once met by two hypotheses; for a certain distance coincident, and then becoming divergent, or even antagonistic. We may suppose that Mr. WATSON was simply annoyed and worried by anticipations of impending poverty, that the loss of his ordinary employment had forced him in an unusual degree into his wife's society, and had fully exposed him to any gifts of exasperation of which she may have been possessed, and that in his anger he struck a fatal blow, not only knowing that it was wrong

so to strike, but also having the power to refrain from striking. Or we may believe that his anxieties and his unhappiness had driven him mad; that he had either no power to control his actions, or no knowledge of their nature; or that he was under the influence of some form of hallucination, of which the murder was but the natural outcome. In favour of this view it may be urged that the power of self-control increases by exercise, while the passions are chastened and subdued by age; and that it is not likely that an elderly clergyman, long habituated to external decorum, should have cast its bonds aside under the influence of anything short of madness. The hypothesis advanced by those who contended for the insanity of Mr. WATSON is, that there was the history of an antecedent melancholia, attended by symptoms that were appreciable to others, such as depression and some alteration and eccentricities of manner, and that the destruction of his wife was the natural outcome of this diseased condition. From information that we have received from reliable sources, it would appear that there was cause for melancholy in the fact that seventy pounds was all that stood between the unfortunate man and starvation; and he is stated to have alleged that the thought of doing something to his wife had been presenting itself for some months to his mind, but that he had resisted it. To the medical jurist this might be regarded as an evidence of his being the subject of delusion; but to the public it would afford additional evidence of that malice aforethought which constitutes murder. On the other hand, there is a total absence of evidence of intellectual insanity; and, if we disregard the fatal deed itself, everything which either preceded or followed it would appear to have been the result of normal ratiocination. We cannot but feel that the plea of insanity was not sufficiently established to be acted upon by a jury. We are glad, however, that the sentence has yet to be reconsidered by the Home Secretary; because the case is eminently one in which strong and special grounds for the exercise of the prerogative of mercy may be advanced.

We have been gratified to see, in the course of the trial, that the time-honoured legal test of sanity—the "knowledge of right from wrong"—has been admitted on all hands to be fallacious when taken by itself. It manifestly requires to be supplemented by a power to govern the conduct in accordance with the knowledge; and we hope to see the day when our jurists and physicians will be able to frame a sentence less liable to exceptions in argument, and less fruitful of abuses in practice.

SOME valuable observations have just been published in the *Centralblatt*, by Dr. H. SENATOR, "On the Relations between the Generation of Heat and the Metamorphosis of Tissue in the Body." He shows that under ordinary waking conditions, with the body at rest, and the stomach not actively engaged in digestion, the generation and loss of heat do not undergo any considerable variation. Even when no food has been taken for a considerable period, though the development of heat and the excretion of carbonic acid diminish, it is to a less extent than might be expected. Thus a dog weighing 12 lb., and fed on a pound of horse-flesh and a little lard per diem, gave off 12, at most 14, calories (one calory raising a kilogramme, or 2 lb. 2 oz. of water, 1° cent.) per hour, and from 52 grs. to 56 grs. of carbonic acid; after two days' fasting, it still gave off 11·6 calories and 51·7 grs. of carbonic acid. Digestion, as has long been well known, increases the excretion of carbonic acid; and SENATOR demonstrates also that it raises the temperature,—the two, however, not being quite proportionate, the augmentation of temperature being relatively the greatest. In the second hour of digestion the dog gave off no less than 21 calories, and excreted 77 grs. of carbonic acid; showing an increase of 60 per cent. in the former, and of 45 per cent. in the latter. This difference, no doubt, arises from the circumstance that although active disintegration and metamorphosis of the tissues and materials ingested are taking place, all leading to the evolution of heat, yet these changes do not at once proceed to the formation and elimination of the ultimate products—carbonic acid, water, and urea. M. SENATOR next shows that when the body is artificially cooled there is probably no increased generation of heat, though the amount of carbonic acid excreted is greatly augmented—a point of great importance, as showing that the amount of carbonic acid excreted cannot be regarded as a measure of the amount of heat generated in the body; or, as he puts it, under certain circumstances, the excretion of carbonic acid can increase without increase in the production of heat, and without the performance of mechanical work. M. SENATOR then proceeds to give the results of his researches on this subject in animals in which a febrile state had been artificially produced. He finds that during the first two hours after pus has been subcutaneously injected there is no marked increase either in the elimination of heat or of carbonic acid; and even at the height of the febrile state, when the temperature in the rectum reaches to 40°–41° C., the amount of heat eliminated, as estimated by the calorimeter, and the amount of carbonic acid produced, are but little if at all augmented. When increase of the excretion of carbonic acid does occur in fever, it is always proportionately less than the augmentation in the discharge of urea, which is constant and considerable. From this and other considerations he concludes that during the height of the febrile attack certainly not more but rather less fat is consumed than during a corresponding period of fasting; and notwithstanding the partial increase in the metamorphosis of tissues and blood components that occurs in fever, yet, upon the whole, the forces set free are considerably less than in health with sufficient food.

Medical Annotations.

"Ne quid nimis."

THE PRINCE OF WALES.

NOTHING definite has been settled as yet with regard to the selection of the locality which His Royal Highness the Prince of Wales will visit with a view to the complete establishment of good health. The Prince will not leave Sandringham until he has gained more strength. We believe this decision to be a very wise one. No doubt the actual fever has left His Royal Highness some time, but convalescents from typhoid cannot be too careful, in appa-

rently trivial matters, for a while, even when convalescence has fairly set in. The present decision in His Royal Highness's case is another illustration of the very sound judgment and careful forethought exercised by the physicians of the Prince.

THE COLLEGE OF SURGEONS.

THE abstract of the proceedings of the last Council meeting at the College of Surgeons, which appeared in THE LANCET last week, will have informed the four aspirants to the honour of the Fellowship by election after twenty years' membership, that the consideration of their claims is postponed for a twelvemonth. It is not a little curious how this action of the Council has been brought about. We believe the earliest reference to the power of the Council to elect two Fellows under the Charter of 1852 was in an article headed "Honoris Causâ" which appeared in these columns on January 2nd, 1869. In this it was pointed out that Dr. Fayrer, of Calcutta, who had then recently been decorated with the Star of India, was a member of the College whom circumstances had precluded from taking the Fellowship, but who might well be chosen for election under the special provisions of the Charter referred to. This opinion, we know, was warmly re-echoed in India, and by all to whom Dr. Fayrer's surgical abilities were known. No members of the Council, however, appeared inclined to take up the matter, and, though referred to more than once by us, no active steps were taken.

Last spring, however, an eminent provincial surgeon, a Member after 1843, applied to be elected a Fellow under the Charter of 1852, and was somewhat curtly referred to the bye-laws regulating the examination. His action induced others to bestir themselves, and the result was, as we have stated, that the applications of four candidates were sent in last week, each signed by six members of the Council. It was, we understand, stated to the Council on good authority, that the intention of the framers of the Charter of 1852 was to provide the opportunity of conferring an honour upon members distinguished by scientific attainments, and not upon gentlemen who had simply neglected their opportunities of becoming Fellows early in life. Objection to this statement was not unnaturally founded upon the fact that the Fellows proposed to be so elected are required to pay a fee of ten guineas—a privilege which the College could hardly confer upon those it elected without solicitation to a post of honour. In the end the whole question was referred to a sub-committee, and the proposed candidates must of necessity remain unsatisfied for another twelvemonth.

Although, as we are glad to learn, the seriousness of Mr. Partridge's illness appears to have been exaggerated, the filling up of the vacancy in the Court of Examiners may be justified on the score of his health, and also of that of Mr. John Adams, who is occasionally prevented from fulfilling his duties. The announcement from the chair was so unexpected that no nomination of candidates was made; and Mr. Simon's motion to advertise vacancies in the Court, which has our complete sympathy, will, we fear, not be carried in time for the present election. We may call attention, therefore, to a resolution of the Council, adopted in March, and confirmed in August, 1870, in the following terms:—"That it is desirable that not less than half of the members of the Court of Examiners shall be Fellows who *are not, and have not within twelve months been*, members of Council." Since, by the retirement of Mr. Cock, who was not a member of Council, a vacancy for an examiner from among the Fellows at large was created, we hope that the Council will act up to the spirit of its own resolution, and elect an examiner not on the Council on the present occasion. Failing this, the Council will, we suppose, fall back upon its own senior eligible member; and as Sir James Paget, Mr. Charles Hawkins, and Mr. Prescott Hewett have declined the honour, the contest will probably lie between Mr. Spencer Smith and Mr. Birkett.

CLINICAL SOCIETY.

THE fourth annual meeting of this Society was held on the 12th instant. Dr. Gull occupied the presidential chair, his absence on special duty being happily no longer necessary. The proceedings commenced with the reading of the annual reports relative to the scientific and financial prosperity of the Society, both of which, but especially the latter, were highly satisfactory, and bore testimony to the steady and deserved progress which has been made since the foundation of the Society. The papers read and the discussions thereupon were of no ordinary interest. Mr. Brudenell Carter's paper "On the Treatment of Internal Strabismus (due to paralysis of the external rectus) by Tenotomy and Faradisation," was listened to with the attention it deserved, and provoked a discussion on the causes and treatment of these paralyses which proved most instructive. Dr. Ogle's paper "On the Temperature of Tetanus" gave rise to a lively discussion on the subject of temperature in general, and its diurnal variations both in health and disease, not the least notable feature in which was the amount of difference of opinion which appeared to exist among the members concerning matters of every-day experience.

Dr. Gull, the President, will deliver an address at the next meeting of this Society, on Friday, January 26th. Papers are announced, also, by Mr. Cooper Forster, "On Popliteal Aneurism"; by Mr. Hulke, "On the Therapeutic Value of Condurango, the alleged Remedy for Cancer"; and by Mr. T. Bryant, "On Colotomy in Cases of Recto-vesical Fistula."

THE EDINBURGH ROYAL INFIRMARY.

ON Friday, the 12th inst., the Committee of Contributors to the Edinburgh Royal Infirmary submitted their report on the proceedings of the managers and on the treasurer's accounts from the 1st of October, 1870, to the 1st of October, 1871. The committee recommend the contributors not to approve the proposed statute depriving mercantile and legal firms of votes; while they also impress upon the managers the propriety of giving effect to the statute passed on New Year's Day as to affording facilities for the admission of lady students into the wards for clinical instruction. The committee's report contains an examination of the accounts, and a statement of the sums available for building the new Infirmary; while it expresses a very just regret at the small public interest taken in the Convalescent House, as is evidenced by the inadequacy of the subscriptions towards its maintenance. The recommendation as to the voting qualification of the firms was carried by eighteen votes to three; that with reference to the lady students by sixteen votes to three.

The issue of the scrutiny to which we referred last week has been to leave the majority in favour of the Lord Provost's resolution. His Lordship's vote was struck out on the ground of his having been chairman of the meeting, and the votes in favour of his list are now 171, as against 165 on the other side. For his Lordship's list there voted—28 firms, 31 ladies, and 7 doctors; for the managers' list—14 firms, 2 ladies, 37 doctors, and 3 druggists.

On Tuesday the contributors held an adjourned meeting, when their committee's report on the managers' report, submitted on the 1st inst., came up for examination. The

chairman of the committee moved the adoption of the report, which, *inter alia*, recommended the erasure of the third resolution proposed by the managers, excluding firms from voting. An amendment was proposed to the effect that the managers' report be approved, including the third resolution above mentioned, and that the managers carefully consider the report of the contributors' committee with a view to the adoption of its suggestions "in so far as these might appear practicable and proper." On a division, 232 voted for the motion and 227 for the amendment. Mr. T. G. Murray then moved that the motion carried by Prof. Masson on the 1st inst. was incompetent as having been introduced without a month's notice. The Lord Provost moved that Mr. Murray's motion was itself incompetent. A stormy scene then ensued, during which the meeting broke up.

THE CHRISTISON BANQUET.

ON the 23rd proximo Sir Robert Christison will be entertained at a public dinner in Edinburgh, on the occasion of the fiftieth anniversary of his induction as a professor in the university of that city. The Right Honourable John Inglis, Lord Justice-General of Scotland and Lord Chancellor of the University, will take the chair; while the croupiers will be Sir W. Stirling Maxwell, Lord Rector of the University; Principal Sir Alexander Grant; Dr. Robert Paterson, President of the Royal College of Physicians of Edinburgh; Dr. William Walker, President of the Royal College of Surgeons of Edinburgh; and Dr. J. G. Fleming, President of the Faculty of Physicians and Surgeons of Glasgow. The list of stewards comprises names distinguished in the professoriates of Oxford, Cambridge, Dublin, and the other universities of the United Kingdom. The banquet, we doubt not, will be in every respect worthy of the guest of the evening, whose long connexion with the great Edinburgh school has been marked by all the services which a high-minded gentleman, an accomplished scholar and man of letters, a physician of the most varied and profound acquirements, and a teacher second to none in clearness and force of exposition, is capable of conferring on any seat of learning.

It may be well to add that the demand for tickets (£1 5s. each) is already so great that all who wish to take part in the proceedings should apply without delay to the Hon. Secretary, Mr. J. Hope Finlay, W.S., 52, Frederick-street, Edinburgh.

DR. LIVINGSTONE.

IN spite of the very confident belief of many distinguished travellers and geographers in the life and safety of our great missionary explorer, the anxiety of the public as to his fate quite justifies the Royal Geographical Society in sending out a search expedition in his track. The sum required to defray the expenses of the expedition must necessarily be great, and munificent as have been the subscriptions already made, their amount is still far short of what is requisite. We are glad to see that a subscription-list for Scotland has already been opened, and we hope that the response of his fellow-countrymen will be such as to attest their adequate appreciation of the great explorer's services to science and civilisation. The committee formed at Edinburgh includes Principal Sir Alexander Grant, Sir Robert Christison, Sir W. Stirling-Maxwell, Colonel Sir J. E. Alexander, and many other gentlemen well known in scientific and literary circles. In Glasgow, again, the Chamber of Commerce has just received a letter from the doctor's son, Mr. Tom S. Livingstone, inquiring, Telemachus-like, whether the projected expedition was an object which the Chamber could consider and subsidise. Though the Chamber, as such, declines to contribute, its directors and members express their deepest interest in the expedition, and have already subscribed handsomely towards its fund. We have only to add our own appeal to the profession for a liberal contribution to the undertaking now on foot in behalf of an illustrious fellow-member.

THE ACTION OF QUININE ON THE WHITE CORPUSCLES OF THE BLOOD.

SOME time ago Binz stated that quinine possessed the property of arresting the movements of the white corpuscles of the blood. This was, however, considered by Stricker not to be justified by the facts, since the quinine was applied in the form of an acid solution, the acid of which, whether the quinine were present or not, would be certain to exert a powerful action on the white corpuscles. The subject has recently again been taken up by Kerner, who contributes a paper on this subject to the last part of Pflüger's *Archiv*, being incited by the observations of Mosler on the cure of certain cases of leucæmia by the administration of quinine. Kerner remarks that it is quite possible to obtain a neutral salt of quinine, and in his experiments he used the chloride and the carbonate. He drew small quantities of blood from cats and dogs, and applied a one-tenth solution of this salt in the proportion to the blood of 1 part to 4000, upon a microscopic stage maintained at blood heat. The result was striking. The white corpuscles became round and darkly granular, and the movements were very speedily completely arrested. It of course became interesting to compare these effects with those produced by other neutral salts, and in pursuing this investigation to some extent he found that salicin, caffein, atropine, and arseniate of potash were all either wholly indifferent or possessed only the slightest influence. Quinine, therefore, exerts a remarkable action on the white corpuscles of the blood, independent of its antiseptic properties.

DRAINAGE OF CALCUTTA.

WE are indebted to the courtesy of Mr. William Clark, the engineer to whom Calcutta owes so much for its present and prospective sanitary condition, for a communication in which he replies to the criticisms that have appeared from some sources in this journal. We do not publish it *in extenso* for the very good and simple reason that we must reiterate what we have said before—namely, that the victory is with him. We confidently hope that no adverse criticism will delay the further progress of the works that have been undertaken, and that they will not do so appears pretty certain, as the recent and unanimous determination of the justices is to extend the drainage to the northern or native portion of the city. Mr. Clark informs us that about 1000 houses are actually connected with the new system of sewers, and that this number now includes the Medical College Hospital. "After an expenditure," says Mr. Clark, "of six lakhs of rupees (£60,000) on its construction and continued improvement, &c., it has actually been proposed to erect another building, the present one being generally condemned as entirely unfit for the purposes of an hospital, owing to defective design; and it is somewhat singular that the greatest hope of ameliorating its present unsatisfactory state lies in the anticipated influence of the drainage for good. I have actually been engaged in laying out the drainage of the locality at the request of the Government with this object in view." With regard to the watercloset system of the native huts in connexion with the sewer system, we may add that it has never been proposed that native huts should be furnished with water-

closets. The habits of the poorer classes of natives, who resort to public places under the control of the municipality, render a very important matter of sanitary arrangement easy to accomplish, that would otherwise have been attended with considerable difficulty. As we pointed out on a previous occasion, the improvement in the public health of Calcutta has been most marked since the accomplishment of this great piece of sanitary engineering.

SIR JOHN ROSE CORMACK, M.D.

THE Queen has been pleased to show her appreciation of the services rendered to humanity during the successive sieges of Paris by a member of our profession by conferring on Dr. Cormack the honour of Knighthood. Sir J. Rose Cormack took his degree of M.D. at Edinburgh in 1837, and is both a Fellow of the College of Physicians and Fellow of the Royal Society of that city, to the Infirmary of which he was formerly physician. Having settled in Paris, Dr. Cormack took an active part in the formation of the Anglo-American Ambulance, and energetically assisted in carrying succour to the wounded around Paris. When the siege of Paris was complete, he became surgeon to the English ambulance in the Rue d'Agnesseau, maintained almost entirely by the liberality of Sir R. Wallace. There Dr. Cormack did good service during both the sieges which Paris underwent, and suffered personal privation whilst assisting those under his charge. He has since been appointed physician to the Hertford Hospital in Paris—the foundation of the same munificent benefactor to the poor.

Sir J. Rose Cormack has been a frequent contributor to contemporary medical literature, especially on the subject of cholera, and is well known to the profession by the translations he has ably undertaken for the New Sydenham Society, especially that of Trousseau's "Clinical Medicine," recently published. It says not a little for his energy that the publication of the work in question should not have been delayed by the translator being enclosed within twice-besieged walls, and amidst scenes of death and bloodshed, for many months.

CONJOINT SCHEMES.

IT is scarcely likely that the General Medical Council will content itself with discussing at its next meeting only one scheme. This would be bootless work that could not avert legislation, which is what the examining bodies most fear. The various bodies in Scotland are using their endeavours to agree upon a scheme, and we believe there is considerable progress made towards agreement, the universities being included. We have heard as yet nothing decisive from Ireland, where efforts to concoct a presentable scheme are also being made. The Council is committed by a resolution of its own to appeal to Government if a satisfactory scheme or schemes for the whole kingdom are not forthcoming. If all accounts be true, the Scotch bodies are not enamoured of the English scheme. The Colleges of Physicians and Surgeons of England have finally agreed to the scheme before approved by them, and it has been sent on to the Universities of England for their final acceptance, of which there can be no doubt.

THE BRIGHTON POISONING CASE.

THE past week has been marked by two criminal trials in which points of more than ordinary psychological interest were involved. They appear to us to indicate the necessity that exists for introducing some alterations in our laws. The law draws a hard and fast line between sanity and insanity which nature does not. Responsibility, like health, is relative to a greater extent than is generally believed, and many persons of even unsound mind possess a knowledge of right and wrong and some sense of responsibility, and the fear of punishment will deter them from committing crimes. Of Mr. Watson we have spoken elsewhere. In the case of the Brighton poisonings, the cruel nature of the crime, the apparent object with which it was undertaken, and the utter indifference to human life as well as the diabolical cunning displayed in carrying it out, deprived the accused of the public pity which even murderers occasionally excite. The medical evidence appears to us to have been given with the most scrupulous care, and perhaps it was on this account that it met with so little consideration from judge, jury, and counsel. The reasons that actuated the medical witnesses in pronouncing Miss Edmunds insane, in spite of the clearness of her intellect and her freedom from all delusions, are plain. The strongest argument in favour of that view is, to our minds, the prisoner's family history. And what a remarkable history it is! The hereditary tendency to insanity is a well-known fact. It has been especially dwelt upon by Esquirol, who pointed to the frequency of insanity among the aristocracy of France and other countries in evidence of it. The father of Miss Edmunds died at mid-age in a lunatic asylum, having suffered for years before his death from suicidal and homicidal mania; her brother died at Earlswood Asylum an epileptic idiot; her grandfather was a subject of cerebral disease; her sister suffered from hysteria; other relations were afflicted with nervous diseases of some kind, and she herself appears to have exhibited manifestations of hysteria and hysterical paralysis.

PROFESSORSHIP OF OBSTETRIC MEDICINE AT KING'S COLLEGE.

DR. PRIESTLEY has just resigned the Professorship of Obstetric Medicine in King's College, and the office of physician for the Diseases of Women and Children in King's College Hospital, after ten years' connexion with that institution. Dr. Priestley has found the work of private practice too heavy to enable him to fulfil satisfactorily the duties of a hospital physician and teacher in addition. He may seem to be retiring from hospital work somewhat early, but a physician-accoucheur has more trying duties in private practice than a general physician or surgeon, and we may take this opportunity of saying that Dr. Priestley sets a very good example in the matter.

RECENT OUTBREAKS OF CHOLERA IN INDIA.

THE occurrence of cholera among the native population about Delhi naturally gave rise to some apprehension as to the probable extension of the disease to the troops assembled in camp for the manœuvres. Dr. Muir, the principal medical officer of the British forces in India, was summoned, we understand, by the Commander-in-Chief. A board, composed of the senior ranks of medical officers, met, under the presidency of Dr. Muir, and the result was a recommendation that the proposed military manœuvres should not be postponed. The disease was exclusively confined to one class of people; but its sudden appearance at this season led to the belief that the outbreak would be of limited duration. A new camp was selected at a distance from the scene of the outbreak, and arrangements were made for rapid dispersion of the force if necessary. No connexion was traced between this outbreak and that at other and distant stations. The cholera, which, according to the previous mail, had appeared in the 17th Regiment at Lucknow, has, we are glad to say, quite ceased. Only one case occurred in the 62nd Regiment; and it is considered

by some that the dissemination of the disease among the individuals of the former corps can be best accounted for by the theory of contagion. The outbreak in the 96th Regiment, at Dinapore, has likewise been arrested; and apparently by the same method as in the other corps—namely, by removal of the men to camp.

CHARLES LEVER ON THE MEDICAL PROFESSION.

WE print elsewhere a letter bearing the signature of Charles Lever, which appeared in the *Pall Mall Gazette* of Tuesday last, and which bears a tribute, of which we may be justly proud, to the high moral and intellectual qualities of the members of the medical profession; qualities in no small degree due to the exercise of the calling in which the medical life is spent. Mr. Lever justly points out that the doctor is familiar at once with some of the deepest problems of science, and with the practical working of the truths whence those problems proceed. He shows also how the familiarity of the profession with all classes raises it above the prejudices of any, and renders it peculiarly fit to gauge the state and tendencies of the national mind. We cannot but warmly welcome an advocate so able; who says for our calling so much that modesty prevents us saying for ourselves, but which it would be mock modesty not to accept when said by another. It is not the least among the triumphs of medicine that it has numbered amongst its panegyrists the greatest names in literature. The eulogy sung by Homer has been re-echoed from his time to ours; and Mr. Lever does but strike a chord that has already responded to the master touch of Thackeray and of Dickens.

THE JURY OF MATRONS.

NOTHING proves more thoroughly the conservative spirit of the English people, and the great difficulty in altering an ancient law, than the practice of empanneling a jury of matrons, taken indiscriminately from women present in a court of justice, to determine a question which often taxes the judgment of the most accomplished accoucheurs. No one will dispute the mercy and justice of respiting a condemned woman who is pregnant until after the birth of her child, but it is surely desirable that the relic of barbaric law which relegates the question of pregnancy to this absurd tribunal should be at once repealed, as it has more than once imperilled justice by delivering an erroneous verdict. The mode of proceeding is something more than an anachronism—it is a scandal.

In the case of Christina Edmunds no mistake could possibly be made. She has been in gaol about four months, and the catamenia have appeared within the last three weeks, whilst the state of the abdomen and the absence of stethoscopic signs proved to Dr. Ryley that she was not "quick"—the only condition which under the present absurd system justifies a respite.

We look to the Home Secretary to introduce a Bill for abolishing the present scandal, and to give the Judge the power to order a proper medical examination to be made by competent persons when necessary.

CHOLERA IN THE EAST.

THE cholera, which in Constantinople to the end of November showed signs rather of increasing than diminishing in intensity, has, since that time, according to the mortality statistics, taken a favourable turn. In the week ending November 26th the deaths were 405 (the deaths being 77 on the 24th, 60 on the 25th, and 66 on the 26th), while in the weeks ending December 10th and 17th the deaths were 288 and 200 respectively, and the daily deaths on the 15th, 16th, and 17th were 33, 26, and 28 respectively.

An outbreak of cholera is reported to have taken place in the neighbourhood of Salonica, and another outbreak at Amassia, a place some distance inland from Samson.

Medina is now almost free from cholera, and at Mecca three or four cases occur daily, but Jeddah is reported to be entirely free.

In consequence of a death from cholera on board the Austrian Lloyd's steamer *Diana* during her voyage from Constantinople to Alexandria, a quarantine has been imposed of twenty days on all vessels with pilgrims arriving there with foul bills of health.

SIR WM. JENNER AND DR. CULL.

WE are able to state that the rumour that Sir William Jenner will be made a K.C.B. and Dr. Gull a baronet for the eminent medical services they have recently rendered to the Prince of Wales, and, through him, to the nation, is well founded. It will be remembered that the late Sir James Clark was a K.C.B., having received that honourable distinction as a special mark of Royal favour for personal services.

THE PROFESSION AND SICK CLUBS IN SOUTH SHIELDS.

OUR readers would learn from THE LANCET of Jan. 6th, that the profession in South Shields have agreed, with almost perfect unanimity, that the "fee for medical attendance on each member of a benefit society after April 1st shall be at the rate of five shillings yearly, and that a fee of half-a-crown be paid for the examination of each candidate whether he be accepted or rejected." Only two medical men dissent from these resolutions. They are so reasonable, especially in a thriving town like South Shields, where the interest of the members of the clubs is in having good medical attendance, that we shall hope to hear of their acceptance by the clubs and by the two medical men who, at the time of the meeting, withdrew their assent.

IPECACUANHA CULTURE IN INDIA.

IPECACUANHA culture is progressing favourably in India. The superintendent of the chinchona plantations has reported to Government that the ipecacuanha slips planted in the Burliar garden in May last are thriving most satisfactorily, and has requested that a portion of the plants now being forwarded to India by the Secretary of State might be sent to the Neilgherries for trial. On the other hand, we have less gratifying intelligence as to the chinchonas. The conservator of forests has reported to the Resident in Travancore and Cochin that an enormous percentage of the chinchonas in the Government plantations at Peermede were dying out from canker. Mr. M'Ivor has been summoned from the Neilgherries to the Travancore plantations to investigate the cause, and, if possible, to supply the remedy.

DISTANCE OF THE MACULA LUTEA FROM THE OPTIC DISC.

IN a recent number of the *Centralblatt*, Dr. Ed. Londolt, of Zurich, states that, from careful measurements he has made in upwards of one hundred eyes, he has ascertained that in healthy or emmetropic eyes the distance of the macula lutea from the centre of the optic papilla, in a horizontal direction, is 3·915 millimetres; the former being also 0·785 of a millimeter higher vertically. The distance is always greater than that represented by these figures in hypermetropic and less in myopic eyes.

GENERAL MEDICAL COUNCIL.

THE representative of the Apothecaries' Company, Mr. George Cooper, has resigned his seat in the General Medical Council. Mr. Cooper was appointed to the post he recently occupied on the death of Mr. Nussey in 1862, and his second term of five years would have expired in the ordinary course of events in April next. Mr. Cooper's successor has not as yet been chosen.

THE Bishop of Exeter presided at a conference of the members of the National Union for the Suppression of Intemperance held at Exeter last week. He expressed his belief that prohibitory legislation on the subject was a mistake, but he would welcome it as a temporary measure, believing it would educate the people into a habit of temperance. He thought a great deal could be done by a careful supervision of public-houses, making the occupiers responsible for any drunkenness that might take place on the premises.

THE Committee of Management of the Northampton Lunatic Asylum have determined to receive a larger number of patients belonging to the middle and upper classes of society, whose friends can afford to pay something for care and maintenance. The terms of admission vary from 15s. per week upwards, which include all expenses except clothing and wine. This asylum was originally founded in 1835; and the Report of the Commissioners in Lunacy, at their visit to the establishment in October last, was specially favourable.

THE Lord Mayor presided on the 12th inst. at the Annual General Meeting of the Governors of the City of London Hospital for Diseases of the Chest, Victoria-park. According to the report, a second wing just added to the building will raise the in-patients' accommodation to 164 beds. The total number of in-patients during the year has been 688; of whom 643 have been relieved, and 45 died. The number of out-patients has been 13,741, and the average weekly attendance 1175.

A LADY, whom Dr. M'Intyre, of Odiham, operated upon and cured of femoral hernia about twenty years ago, has recently died, and has left him, as one of her executors, a legacy of £100, together with a bequest of £4000, "in testimony of his great kindness and professional services." It is not often such pleasing rewards follow upon the same sensible pleas; when they do, they are the worthier of record.

DR. SYMES THOMPSON, Gresham Professor of Medicine, will deliver the following lectures at Gresham College: Jan. 18th, "On the Digestive Organs in Health and Disease"; Jan. 19th, "On the Bloodvessels"; Jan. 20th, "On the Pulse." The lectures commence at seven o'clock in the evening, and are free to the public.

PREVIOUS to the meeting of Parliament, Dr. Lyon Playfair, M.P. for Edinburgh and St. Andrews Universities, will deliver an address at the Philosophical Institution of Edinburgh on the "Teaching Universities and Examining Boards," with reference, *inter alia*, to the recent schemes for medical reform.

THE investigation at Halifax, Nova Scotia, into the conduct of Dr. Gussip, of the steamship *Franklin*, continues. The *Leeds Mercury* states that evidence confirms the report that there were twenty-eight deaths from cholera while on the voyage, and two deaths while the ship was in the harbour; and that the bodies were thrown overboard.

THE Council of the Medical Society of London have prepared a congratulatory address to Her Majesty the Queen and the Royal Family on the convalescence of His Royal Highness the Prince of Wales.

THE last accounts of the small-pox epidemic in Trinidad are to the effect that 52 persons were still suffering from that disease, the total number of cases being since the outbreak 348: 52 fatal, 244 recovered, and 52 under treatment.

LIVERPOOL had its second Hospital Sunday on the 14th inst., the result of which, although not yet known, it is believed will more than equal that of last year.

THE *Swiss Times* says that the ladies at present attending the Zurich University are so numerous as to constitute about one-tenth of all the matriculated students.

DR. GOODFELLOW has resigned the office of Physician to the Middlesex Hospital.

Public Health.

HEALTH OF LONDON AND THE LARGE TOWNS.

THE number of deaths registered from all causes last week in London and the seventeen other chief towns was 3382, of which 261 resulted from small-pox, 76 from measles, 51 from scarlet fever, 5 from diphtheria, 191 from whooping-cough, 99 from fever, and 28 from diarrhœa. The general death-ratio was the same as in the previous week (28 per 1000), while as regards the diseases just specified there was a decline in the fatality of all excepting whooping-cough and diarrhœa. Small-pox caused about 20 deaths less in the last than in either of the three previous weeks. How excessive the ravages of this disease continue to be may best be gathered from the fact that the deaths last week yielded an annual mortality-rate per 1000 of the population of 19 in Wolverhampton, 17 in Norwich, 12 in Nottingham, 9 in Sheffield, 6 in Newcastle, 5 in Hull, 2 each in Sunderland, Salford, and Oldham, and 1 each in London, Birmingham, and Bristol. In London the destructive force of the small-pox epidemic has been almost stationary for the last four weeks. Measles is very prevalent in Islington and Bow; scarlet fever in St. George's in the East; whooping-cough in Marylebone, Islington, Bermondsey, Lambeth, and St. George's, Camberwell. The mean temperature of the air at Greenwich was 40·3°, being 4·3° above the average in the corresponding week of 50 years, and to this it is no doubt in great measure owing that the mortality was below the average of the season.

HEALTH OF SCOTCH TOWNS.

In the eight principal cities and towns of Scotland, containing a population of 1,068,483, there were registered during the month of December last 3105 deaths, equivalent to 35 deaths annually to every 1000 inhabitants. The mortality in these towns, taken in the aggregate, was higher than in the chief towns of England during the same period, though individual instances of higher town mortality occurred south than north of the Tweed; as in Wolverhampton, where the death-rate for December averaged 60 per 1000, against 43 in Dundee, which was the most unhealthy of the Scotch towns. In Perth the death-rate of the month was 25 per 1000; in Greenock, 32; in Glasgow, 33; in Paisley, 34; in Edinburgh, 35; in Aberdeen, 36; and in Leith, 41. Zymotic diseases caused 32 per cent. of the mortality in the eight towns, this proportion being exceeded in Edinburgh, Dundee, and Leith, in consequence of the fatality of small-pox, and in Aberdeen of measles. Small-pox has been steadily increasing during the last four months. Thus, in the eight towns there were 47 fatal cases in September, 88 in October, 157 in November, and 354 in December. The deaths from small-pox in the last month constituted 11·4 per cent. of the total mortality of the

towns. In Paisley and Greenock there were no fatal cases; in Glasgow the proportion was 1·6 per cent.; in Perth, 7·1; in Aberdeen, 7·6; in Edinburgh, 17·3; in Leith, 31; and in Dundee, 38·8 per cent. Wolverhampton and Dundee appear to have suffered from the epidemic in about an equal degree, while in Edinburgh it was three times as fatal as in London.

PROVISIONS FOR THE POOR IN LONDON.

The Local Government Board have issued a circular to the Metropolitan Boards of Guardians, calling their attention to the results of the official inquiry into the contracts for provisions and medical comforts. Some of these reports reveal a state of things of which we hope the guardians will be heartily ashamed. Thus there is scarcely an instance in which the contract for milk is duly kept. Instead of the best new unskimmed milk, the poor of Holborn are supplied with skimmed milk with 20 per cent. of water. In several workhouses the brandy consists of common raw spirit, and the wine is a compound quite unfit for the use of the sick poor. Tea at 1*s.* 6*d.* a pound was found not to be worth more than 11*d.*, or in other words, it is, as one guardian has described it, nothing better than "chopped broomsticks." We regret to observe that no inquiry has been made as to the quality and prices of drugs, a matter quite as important as that of food. Nothing is more unwise than the purchase of cheap drugs, especially when there is no real check on adulteration; and yet we believe that bark is supplied at 1*s.* 6*d.* a pound, and other articles at an equally absurd rate.

AMENDMENT OF THE SANITARY LAWS.

Dr. Aldis, Medical Officer of Health for St. George's, Hanover-square, suggests the following amendments for the consideration of the Government:—"1st. That the medical department of the Local Government Board be asked to empower the Vestry to refer to a committee the authority to carry out such sections of the Metropolis Local Management Acts as relate to the abatement and removal of nuisances, in the same way as they are empowered to refer the carrying out of the Nuisances Removal Acts by the 5th section of the 18th and 19th Vic., cap. 121. 2nd. That, with a view to steps being taken to prevent the spreading of infectious diseases, every medical practitioner should immediately report such cases, occurring in private or public practice, to the medical officer of health of his district. 3rd. The 23rd section of the Sanitary Act stipulates that the nuisance authority in each district *may* provide a proper place, with means of disinfection. The word 'shall' should be used for 'may' when necessary, adding also a power to destroy infected articles where necessary. 4th. The 25th section of the same Act provides a penalty on a person suffering from an infectious disorder entering a public conveyance without notifying to the driver that he is so suffering. This clause should be so modified as to impose the duty and penalty on the person *in charge* of the sick, when the latter is of tender years, or is incapacitated by bodily or mental disease. 5th. That the board of guardians of every parish or union be compelled to provide suitable carriages for the removal of patients suffering from infectious diseases, and to give public notice where such carriages can be obtained. 6th. The 27th and 28th sections should be made compulsory for the provision of mortuaries and reception-houses. 7th. In the 38th section the words 'public place' should receive some addition, so as to prevent persons who have just recovered from infectious diseases from selling goods in their shops before they have been certified to be free from the risk of infection. 8th. Persons should incur a penalty who wilfully conceal the existence of scarlet fever or small-pox." These suggestions have been adopted by the Vestry.

A NOVEL PROPOSAL.

The vicar of St. Just is very evidently a clergyman of the muscular sort. He writes to the *Pall Mall Gazette*, giving a deplorable picture of the sanitary state of his village, and he finds from Dr. Buchanan that the Sanitary Acts are like an elaborate watch without a mainspring. The rev. gentleman proposes to supply the necessary moving power himself. He says:—"What is wanted is a short, simple Act, superseding all the former hopelessly inefficient legislation; and enabling somebody (and not a 'body' like a vestry) to enforce the removal of nuisances by summary process. I hope this 'somebody' may be the parson, helped by the local doctors. So long as the Church is established, I can conceive no fitter inspector than one who is above all fear and favour; and, as for the doctor, common sense dictates that he should *ex officio* have the necessary power." In our opinion too much credit cannot be given to clergy and medical men who use their influence and energies in favour of sanitary reforms, and we believe that those energies will never be exercised in vain; but we should be very sorry to see the creation of a sort of sanitary tyranny either in the person of the doctor or the clergyman. The legitimate influence of neither would be improved, by being the depositary of such powers; and although squires and shopkeepers alike want to be brought up to the mark, this will never be done by depriving them of their liberty of managing their own affairs. Like the clergyman and doctor, law may be a good teacher, and in this respect it can doubtless be improved and simplified.

STATISTICS OF SCURVY.

The summary of medical cases admitted into the Seamen's Hospital during the past year indicates a continuously progressive diminution of scurvy, in proof whereof we append a list of the numbers received since and including the year 1865:—

In 1865, from British vessels,			101	—from Foreign ditto,		1
1866	,,	,,	96	,,	,,	5
1867	,,	,,	90	,,	,,	4
1868	,,	,,	64	,,	,,	10
1869	,,	,,	31	,,	,,	9
1870	,,	,,	30	,,	,,	21
1871	,,	,,	24	,,	,,	16

It will be seen by the above summary that the relative number of cases received from foreign vessels has increased. During the past year the Medical Inspector of the Board of Trade has been directed to institute inquiries respecting seven ships that have returned home with cases of scurvy on board. In one instance the vessel put into Queenstown, and it was found that nearly all hands, including the chief officer, were affected. It is very desirable that the results of these official inquiries should be published, or that the inspector should be directed to form a condensed report of them, such as would not only assist the further prevention of the disease, but might help to throw some new light on its causes and pathology.

SMALL-POX.

There is no abatement of the violence of the small-pox epidemic at Neath. The managers of the public schools have, in consequence, decided to close their establishments for some time longer, with the view of preventing any further spread of the infection through the assembling of so large a number of young people from different families in the town. The rector attended the Nuisance Removal Committee with respect to the erection of a temporary hospital, but the mayor stated that they were waiting for plans. The rector then drew the attention of the committee to the case of a child dying on Saturday of small-pox, and, as no coffin could be obtained, remaining in a state of putrescence and in a crowded neighbourhood, to the danger of all who came near it. Plans for the ventilation of the sewers were laid before the committee. The guardians have appointed two inspectors of vaccination.

FEIGNED DISEASES.

WE have lately read with some interest the reprint of a very practical paper from the *Edinburgh Medical Journal* on the "Detection and Management of Feigned Diseases," by Mr. George Wilson, M.B., the Medical Officer of H.M.'s Convict Prison at Portsmouth. The subject is one of importance, and well repays consideration. The perusal of the paper has brought to our remembrance several illustrations of which we have either heard or had personal cognisance.

Medical men are accustomed to place full reliance in the sincerity of their patients. They have, for one thing, to pay us for our attendance; for another, they have very often

to submit to a certain amount of restraint, and to the loss or curtailment of many little pleasures, the sum total of which make up life; and these act as so many checks on deception. We are, of course, excluding cases of diseased volition like those of the hysterical temperament. Not to go back to the time when the press-gang was in existence, many of us can recall those days gone by when the service of one's king and country was not only a very hard but a life-long service; and it need form no subject for wonder that men tried to effect their escape from such servitude by feigning diseases of various kinds. At present, convicts have the greatest temptations to follow a practice from which soldiers, sailors, club patients, and persons injured in railway accidents are not, however, altogether exempt. There is nothing more observable in the public services of the present age than the great change which has taken place in this respect. It is relatively a very rare thing for soldiers to adopt and follow a course of deception now. A judicious, kind, and withal firm medical officer very rarely finds those under his medical charge making attempts of this sort. With criminals and convicts, generally composed of persons of low *morale*, the temptation to escape punishment is, of course, very great; and there is no punishment regarded as equal to that of hard labour by a large class of men who have been engaged in a life-long struggle to escape steady work of all kinds. When they have become the subjects of that kind of disease known among their companions as "rust in the bones," it is extremely hard to get them to put their animal machinery into action. Then, again, there is a portion of the population of large towns, composed of persons who seem to be afflicted with a positive moral imbecility; they are naturally passionate, selfish, and cruel; and, intellectually, they are defective in grasp, power of concentration, and judgment, but endowed with quick perceptive faculties and considerable cunning. To a conscientious man these individuals are a source of extreme difficulty, for they occupy a sort of border-land, and it is almost impossible to fix their responsibility. As Dr. Maudsley says, these contribute their quota to the criminal population of a country, or if they enter either of the services, they become so many centres of insubordination and crime. There is another class of individuals, by no means deficient in intelligence; on the contrary, they possess much quickness of apprehension—who have received a certain amount of intellectual, but little or no moral, training. Vain and discontented, they are cautious, casuistical, and designing; deficient of all robustness of body and mind, they lack the requisite determination of character to lead, and their part is commonly to incite others to acts of vice or disobedience. To this class may be relegated the "lawyers," as they are termed in the army; the men who like intrigue—plotting and planning and grumbling—but who utterly loathe all patient and steady labour. They often possess a considerable amount of passive courage, and when this is the case they supply some of the most cunning, clever, and ingenious malingerers among the criminal and other classes.

There are a few simple rules to be followed in the management of cases of supposed feigning or malingering. One is, never to prejudge the case, but to receive and weigh every statement with due care and attention, so as to protect the patient against unjust suspicions, on the one hand, and to obtain his confidence on the other. Another rule is, never to give an unfavourable prognosis, or at least to suspend judgment, so long as the symptoms are of a purely subjective character. This is especially necessary in cases of supposed diseases or injuries of the nervous system. When a very definite opinion has been pronounced, which facts subsequently prove to be incorrect, discredit is, of course, cast upon our calling. Some years ago a man, after trial and sentence at a county assizes, complained of symptoms of failing sight, which went on to nearly total blindness. His statement was regarded with the greatest suspicion, if not absolute unbelief. Every means was adopted to entrap him. Obstacles were occasionally placed in his path, and he fell over them as naturally as if he had been born blind. At last, some one, after examining his eyes with an ophthalmoscope, thought that he had discovered some signs of disease. Ultimately the man was released. He regained his sight and returned to his criminal courses with surprising rapidity. Some stories of this kind are very amusing. Many years ago a young medical officer in India overheard two soldiers talking together. The regiment to which they belonged was about to march a long distance on the following day. One of the soldiers said he was "going to ride." The other offered to bet some whisky that he did not, and asked how he proposed to escape marching. "I am going to report sick, and get carried, of course," was the reply. "Well, I know you won't cheat our doctor, and now mind." The medical officer reported the conversation to his senior, and it was arranged that the soldier was to be carried, and preparations were made for giving him a warm reception at the first hospital on the march. In due time, to the great chagrin of the soldier who had lost his bet, the pretended sick man was borne away. Finding that he had succeeded so well, he began, in soldier's language, to "glorify himself about it." Retribution, however, soon followed. The man was taken to hospital, complaining of symptoms like sciatica. Great commiseration was expressed for him. He was told to undress, as a slight operation was necessary. The man was evidently somewhat of a coward, and his countenance was a study, as a galvanic machine was brought forth, and a few strong shocks passed through the affected limb. He roared, quite as much with the fear of what might follow as from any actual pain, and implored to be allowed to return to his duty. The news spread, and the man had little relish for his "tot of whisky," owing to the chaff that accompanied its administration.

We have heard of the case of a man who feigned deafness for some time so well as to have succeeded in convincing those about him of its reality. His medical attendant entered into an arrangement by which this deafness might be tested. At his daily visit he kept on prescribing extra wine and articles of diet, but, in reality, he ordered that none of them were to be supplied. The consequence was, that while the patient was nominally living upon the fat of the land, he was actually suffering from hunger. At last the surgeon remarked aloud that he could not understand why the patient seemed to be losing flesh with such a diet. This proved too much, and the pretended deaf man in an unguarded moment indignantly exclaimed to the nurse—"You thief! you know I never had any of those good things." Another patient, supposed to be suffering from some nervous lesion for which he had been blistered, discovered that the dressing over the blistered surface protected him from the shocks of galvanism which were being applied. He used, however, to pretend that these parts hurt most, and in the loudest tones implore the attendant not to apply the current through them, which, by the way, the attendant, who was sceptical as to the man's symptoms, always did. It turned out, of course, that he scarcely felt the shocks from the non-conducting nature of the material over the blistered surface. The late Professor Syme has taught us of the dislike which tramps and hospital birds have to the application of a blister to the surface of a callous old ulcer, in consequence of its causing the ulcer to heal.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting was held at 11, New Burlington-street, on Friday, the 12th inst., the President, Dr. Burrows, F.R.S., in the chair.

The report showed that during the past year the total receipts in the donation department were £1177 6s. 5d. (exclusive of a legacy of £500 from the late Dr. Cursham, which had been invested for the benefit of the annuitants in accordance with the laws). 113 distressed medical men, or the families of such, had been assisted by grants, the sum paid in such manner being £961.

In the annuity department dividends from invested moneys produced £570 13s. 11d., of which £560 had been paid among 33 annuitants. The Committee called attention to the fact that they had only been able to elect three fresh annuitants during the year, although there are still 25 candidates eagerly and anxiously awaiting vacancies.

Additional donations of £50 from Dr. Gull, F.R.S., and of £52 10s. from Dr. Warburton Begbie, of Edinburgh, were gratefully referred to.

Votes of thanks to the Messrs. Churchill for the use of a

room for the meetings, to the editors of the medical journals for their advocacy of the claims of the Fund, to the various officials, and to the Chairman, terminated the meeting.

The President for the coming year is Dr. George Burrows, F.R.S.; the Vice-Presidents are Mr. Edgar Barker, Sir H. Holland, Dr. Bence Jones, and Mr. Henry Sterry.

Correspondence.

"Audi alteram partem."

SANITARY STATE OF SCARBOROUGH.

To the Editor of THE LANCET.

SIR,—In all scientific investigations it is of the first importance to search for facts, whereby the judgment may be guided in deciding the questions at issue. If time and patience are required for their discovery, they ought to be freely expended, if we would protect ourselves from error. Had the first investigation into the sanitary state of Londesborough Lodge been conducted less hurriedly, and rested solely upon personal observation and experimental proof, the statements which have gone forth to the public would not have been so contradictory. The circumstantial evidence at the time bore strongly on Scarborough as the probable source whence the typhoid cases originated, and each circumstance or fact, real or supposed, which strengthened this supposition, was eagerly seized upon as corroborative proof of the truth of the allegation. A grievous wrong was thus inflicted upon Lord Londesborough and upon the inhabitants of Scarborough.

Wherever a sudden outbreak of typhoid fever occurs, there probably you will find indubitable evidences of its origin. If it should happen in the centre of a district where such a disease had been previously unknown, the signs of its local source would be real, tangible, and conclusive. It is not so much, I apprehend, whether Londesborough Lodge is a model of modern sanitary engineering skill, as whether the conditions there found are such as reasonably to sustain the imputation cast upon it.

Let the facts speak for themselves. The house stands upon an eminence, in about two acres of well-kept grounds, sloping towards the beach. The fresh sea-air, charged with ozone, surrounds it on every side. It is provided with a pure and continuous water-supply from a high pressure system. Its drain-sewers have a rapid fall, and are strong, perfect, free from deposit and smell. Within them there are no pestiferous gases, and no back-draughts to interfere with the free circulation and escape of fouled air. The ventilating shafts are amply sufficient, not only to relieve any pressure to which the drain-sewers might be subjected, but also freely to permit the ingress of fresh air. There are no cesspools inside the house, and no heaps of festering filth outside. Can a spot like this be the birth-place of typhoid fever?

If we appeal to the sanitary history of this district, we find the natural answer to this question. For a period of upwards of twenty years, neither at the Lodge nor at any one of the twenty-four villas and houses by which it is surrounded has a single case of typhoid fever been known. Surely at such a place, and under such sanitary conditions, unmistakable signs of its local origin would have been discovered by the "experts" had they really existed.

We are reproached with our high death-rate—24 in 1000. But it should be remembered upon what basis this calculation is made; not upon one which represents the average population, as is the case in most other towns, but upon an exceptional and accidental foundation. The "census" is taken at a time of the year when Scarborough is deserted of its visitors, and when Brighton, St. Leonard's, and other southern watering-places are full. During the "season" we have often as many as 16,000 added to our resident population. The deaths from this influx are included in the "returns," and the percentage drawn from a standard applicable only to residents. It is just the reverse with the towns with which our death-rate has been compared. Correct this miscalculation, and then draw the comparison. We are not afraid of the figures. From a return just made of the number of deaths among the resident population of New Scarborough during the past year, I am assured on the best authority that there have only been 12 deaths in 2235 inhabitants, *actually less than* 6 *in* 1000. A fact like this is of more real value than all the ingenious theories which have been propounded to explain the origin of typhoid fever.

It is not, however, upon the sanitary view of the question that we have any misgiving. The real difficulty is with the medical aspect. The circumstantial evidence does present a *primâ facie* case against us. Instead of attempting to solve this difficult problem by clear and incisive reasoning, upon all the known circumstances, attention has been exclusively expended upon those which had a local bearing. Much has been said and written about the few cases of diarrhœa which occurred at the time of the Royal visit. I gave candidly and unreservedly all I knew upon the subject; but it appears there were one or two others who also suffered but did not apply for medical assistance. Grant this; yet if we find unmistakable and familiar causes of diarrhœa present at the time, they are more satisfactorily accounted for than by referring them to an escape of poisonous gas from the drain-sewer of the house.

It has been repeatedly declared, as the generally received opinion of the profession, that diarrhœa is a mild form of typhoid poisoning; but I have never been able to discover the experimental proofs upon which this proposition is based. If the opinion rests upon the observations of those who practise in districts where the two diseases co-exist, it is only fair to give equal weight to the experience of those who are in the habit of seeing diarrhœa unassociated with typhoid fever. It is a significant fact bearing upon this question that during the past ten years I have only seen three cases of typhoid fever—two in my own practice, and one in consultation; yet during this period I have attended upwards of 600 cases of diarrhœa. No doubt strange coincidences do occasionally happen, but in tracing this particular outbreak of fever to its source, it would be difficult to find separate and independent foci of infection to account for each individual case.

There is, however, one important link in the chain of circumstantial evidence which has not received the attention it ought. One other case of typhoid fever is interwoven with those under consideration, and, as such, forms an essential and integral part of the inquiry. I allude to the illness of the groom Blegg. What would have been its influence upon the issue had this servant accompanied His Royal Highness to Scarborough? He might have done so. It would not have altered the fact in the least whether the fever was contracted there or not, but the additional link in the chain of evidence would have told most strongly against us. Does his absence from Scarborough, and his sickening for the fever simultaneously with the Prince, point elsewhere for its true source? We venture to think so. There is a meaning in the varied periods of incubation not yet fully understood, and the mystery which envelopes the importation of disease is not yet removed. The subject is indeed one peculiarly fitted for scientific discussion. It is not often we find so many insulated facts supplying material for the purpose. It is not unlikely some one of thetyphoid patients was incubating the fever during his stay at Scarborough. What is the precise state of the human body when these active chemical and vital processes are at work within, we have no precise knowledge. Judging from similar changes in other matter, it would appear as if it was capable of diffusing the specific poison, then being generated, among surrounding objects. I wish to speak with all deference on this subject, as my own opportunities of personal observation have been so limited. It would be interesting and instructive to hear the opinions of those whose experience on this point is more extensive.

I am, Sir, your obedient servant,

GEORGE P. DALE, K.A. SAX., F.R.C.S. Eng.

Falconer House, Scarborough, Jan. 15th, 1872.

*** We regret exceedingly that Mr. Dale should have re-entered the lists on behalf of Londesborough Lodge and Scarborough. If Mr. Dale had given us any new facts we should have accepted them with the fullest confidence in their validity, and we should have been the first to modify

our opinions if there had been need to do so. But the main facts remain unaltered, and no glowing description of the well-kept grounds and rapid drains of Londesborough Lodge will get rid of the fact that three persons who had stayed there were seized with typhoid fever, and that one —viz., Mr. Sykes's groom—could have taken the infection nowhere else. Mr. Dale says there has not been a case of typhoid fever for twenty years in any of the twenty-four villas surrounding Londesborough Lodge. But he has perhaps forgotten that two ladies died of it a few years ago in Grove House, through which the pure and rapid sewer of Londesborough Lodge actually passes, the house itself being close outside the grounds. Upon the question of the death-rate we may have much to say hereafter, but the statement that the death-rate of the inhabitants of New Scarborough is actually less than 6 per 1000 is too much for our belief. It is not necessary to say anything on the medical aspect of the question. Mr. Dale has already given his opinion that diarrhœa might have been caused by the air of Londesborough Lodge, and it is indeed significant that he has attended 900 cases of diarrhœa amongst the visitors in the last ten years. We regret that Mr. Dale should have attempted to connect the case of the groom Blegg with that of the other patients. They had nothing in common except the date of their attacks, and at the time of infection were hundreds of miles apart. The crucial case of Mr. Sykes's butler and that of Lord Chesterfield prove that it is not necessary to look to Sandringham as the source of the illness of H.R.H. the Prince of Wales. The groom's illness had the same origin as the West Newton cases, and was clearly referable to the impure water.—ED. L.

REGINA v. WATSON.

To the Editor of THE LANCET.

SIR,—As I have been made to occupy, through the exceptionally severe and not over-courteous cross-examination at the Old Bailey, a more conspicuous position than I had desired before the public, perhaps you will permit me to give the reasons why I held, and do hold, that the prisoner in the above case was, and is, of unsound mind; and, subsequently, to briefly comment on each head.

1st. There were the evidences of pre-existent melancholia.
2nd. The ferocity with which the deed was committed.
3rd. Its utterly senseless character.
4th. The calmness and indifference of the prisoner's manner after the deed was done.
5th. His justification of suicide, and the expression of his belief that God would forgive the homicide under the circumstances.

1st. As regards the proofs of mental disease prior to the act, they were deposed to by the Rev. Folliott Baugh and his wife as existing a month before the murder; by Mr. H. Rogers on the preceding day; whilst further evidence on this head, not available for the defence owing to the sickness of the deponent, has since been forwarded to the Home Secretary, the statement being that, some months before, he was in communication with the prisoner for the purpose of employing him in his school, but, on an interview, he found his mental condition to be such that he at once broke off the engagement; the evidences of aging and altered aspect deposed to by the secretary of the school a short while after his dismissal. And mark, that to him was no ordinary event: at sixty-seven he found himself suddenly without employment, without any realised money, absolute penury in the not distant prospective, whilst during the nine months he had been thus thrown in upon himself, every attempt to add to his means, or to obtain an engagement, whether literary or scholastic, had entirely failed.

2nd. Passing to my next point, the ferocity of the act, it was argued by the prosecution that it was done in a fit of rage; but, for the credit of our common human nature, I would ask, is it conceivable that mere anger would so transform a mild, quiet old gentleman, as he was shown to be, into such a brutal criminal; so that, not content with slaying his victim, he should go on battering her head and body long after passion alone would have been exhausted. It is, I contend, explicable only as the act of a homicidal melancholic, not otherwise.

3rd. The senseless character of the deed. If done consciously and by premeditation, as the verdict would suppose, I would ask, where could be the gain? Here, again, I argue that the act itself, done without reasonable motive, could only be the product of reason overthrown.

4th. The indifference, &c. Here I would submit—can a parallel be produced from criminal records in any place (Broadmoor excepted), for the remarkable calmness (self-possession Mr. Gibson, of Newgate, phrases it) Mr. Watson maintains whenever the act is referred to, such as to lead his old friend, the Rev. J. Wallis, to state "that he seemed perfectly void of shame and remorse; nay, asserting that he was an injured person by being put in prison"?

5th. His justification of suicide, &c. I may here be met by the remark that he is probably an unbeliever in the Christianity he professed. To this I make reply that there is not a tittle of evidence to show that such is the case. Until the act was done, a regular attendant at church, a constant communicant, his whole moral nature must have become utterly changed and corrupt ere such a consummation could be arrived at, standing out, as it does, in direct antagonism to his previous life, as portrayed by one who knew him well and gives his opinion of his old friend in this day's *Times*.

I pass over his subsequent blundering attempts to hide the act, as similar things have been done by others whose insanity has not been questioned. And as I have occupied much of your space, I subscribe myself,

Yours obediently,

Dean-street, Soho, January 15th, 1872. JOS. ROGERS.

A NEW MIDWIFERY FORCEPS.

To the Editor of THE LANCET.

SIR,—As I find that no comment has been made regarding the "new midwifery forceps" described by Dr. Barclay in your issue of the 6th instant, perhaps you will allow me to state that I have for nearly four years used a forceps similar in every essential particular to that described by Dr. Barclay, which I had made after the pattern of one in the possession of Mr. C. E. Garman, of Bow.

The only points of difference between the forceps I have and Dr. Barclay's are, that in his the female blade is the under one, in mine it is the upper; in mine the cross stops do not move, and in mine the handle is five inches in length, that is, one inch longer than in Dr. Barclay's; the measurements in every other particular being identical with those given by him, and the handles being similar.

I can fully endorse Dr. Barclay's opinion regarding their facility of application and efficiency, as I can, from considerable experience, say they are admirably adapted for any case in which the forceps is of use.

I write this, not with the intention of depriving Dr. Barclay of the credit due to him for having devised a forceps new to himself, but to let the profession know that such a forceps has been in use for many years.

I am, Sir, yours faithfully,

MARK LONG, M.D.

Richmond-road, Dalston, E., Jan. 13th, 1872.

HOLE-AND-CORNER SURGERY AT OXFORD.

To the Editor of THE LANCET.

SIR,—I think the bulk of the profession at Oxford have a grievance which you may help us to remove. We have a large infirmary, with a staff of three physicians and three surgeons. The other medical men in the place are constantly sending patients there who require operative interference in their cases. In most large towns where this is the case the profession, as a matter of courtesy, are admitted to see important operations—as a large infirmary is generally considered as to some extent public property,—and lessons to be learned at such an institution are not grudged to the profession at large. Here this is, as far as

operative surgery is concerned, not the case. I can hardly think that this is from the unworthy motive of keeping all that is to be learned at such an institution as the exclusive property of the staff, and of so monopolising all the surgery of the place, or that our staff is thin-skinned as to outside criticism. Still, whatever may be the cause, the profession at large is *practically* debarred from the privilege of witnessing the operations. There is no stated day or hour for them, and the house-surgeon of the hospital is not allowed to give information as to coming operations to medical men not on the staff, even by a private note. The present house-surgeon, when new to his post and unaware of the unusual sensitiveness of the surgical staff, very kindly, on one occasion, sent round to the profession a notice of some important operations for the next day; but this he is not allowed to repeat. The governors have not forbidden it; the physicians are most liberal in inviting the profession to see their practice; the surgeons only, a happy (or rather a not very happy) family, practically deny us admission to a very important part of their practice, by keeping all information as to operations intended to the staff. One surgeon once or twice a year has, by means of a private note, invited some of us, and this is all. There are a number of medical men here anxious to improve their surgical knowledge who are thus forbidden the opportunity. Why should this be? What harm could result from sending the notice issued to the staff to the profession at large—a courtesy which the present house-surgeon showed himself willing to extend to us till he was prevented by the surgical staff, or some of them? By inserting this letter you will much oblige, Sir,

Your obedient servant,

Oxford, Jan. 14th, 1872. M. R. C. S.

P.S.—I enclose my card.

"ISCHÆMIA."

To the Editor of THE LANCET.

SIR,—Dr. Clifford Allbutt seems somewhat to have mistaken the observation of mine upon which he writes. I did not object to the phrase "ischæmia papillæ"—but to the *word* "ischæmia"—whether applied to the papilla or to anything else, when used to signify material obstruction instead of dynamical restraint. From this point of view, it is unimportant that Alfred Graefe's case was one of "ischæmia retinæ"; and, as regards priority, that case was published in 1861.

I am, Sir, your faithful servant,

THE REVIEWER.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

THERE can be no doubt that the tide of small-pox which is receding slowly from Wolverhampton is advancing in this town. Thirty-three cases of small-pox have been admitted into the General Hospital since the beginning of November. Eleven of these were of the confluent variety. Last week, as the week prior to that, there were five admissions. Most of the confluent cases have been among the later admissions. All the cases admitted had been vaccinated but one, which died. Two deaths have occurred; in both cases there were confluence and absence of vaccination scars, though in one there was a history of vaccination in infancy. The unvaccinated case died on the ninth day of the eruption, with cerebral symptoms. The other death occurred on the eighth day of the eruption, with pneumonic symptoms. There has been no extension of the disease to any of the inmates of the hospital. The cases have not originated in any particular district of the town, but have been brought from all parts. There are 62 small-pox patients in the special recently-erected wards at the workhouse, 34 of whom have been admitted during the past week. The sanitary inspector reports to the Board of Guardians that the total number of cases of which he has knowledge for the week ending December 30th was 358, while for that ending January 6th the number was 447; but this number is probably far below the mark, as many surgeons will not, from various reasons, fill up the forms issued to them by the Corporation, indicating what number of cases they have under treatment, and whether they are willing to be removed to the public infirmary. In order to meet the increased demands upon their space, the Board of Guardians have resolved to erect another special building to accommodate 30 patients, and of such a size as to give 800 cubic feet of space to each patient. In Walsall, also, further hospital accommodation for small-pox patients has become imperative.

Dr. Ballard, the Medical Inspector of the Local Government Board, recently visited Wolverhampton, and, at a meeting of the Town Council, suggested the propriety of a permanent hospital in which to isolate all cases of fever, a proper disinfecting machine, and a vehicle for the removal of all fever patients to the fever hospital. He condemned the appointment of medical men indiscriminately as public vaccinators.

The Town Council of Dudley, profiting by the advice recently given by Mr. Simon, have opened negotiations with the Waterworks Company for the supply of all the houses in the borough, and have raised the question of appointing a permanent medical officer of health at the splendid salary of £50 per annum.

The difficulty which I pointed out in a former letter as likely to arise from the congregation of a large number of sick paupers and their friends in the waiting hall of the Birmingham parish offices, is beginning to be sensibly felt. At their last meeting the guardians received a letter from the parish surveyor, complaining of the impure atmosphere of his office, and a memorial signed by all the officials was read, stating that many of them were ill, and that they believed their illness was due to their performing their duties in close proximity to persons who had come from the bedsides of those who were suffering from all kinds of contagious diseases. The removal of the dispensary from the parish offices altogether is indispensable, unless steps are taken to provide a suitable well-ventilated and spacious apartment for the reception of those who are either sick themselves or who come to the dispensary for medicine. As many of the guardians themselves complain of the nuisance of having to transact business there under such circumstances, there is some probability of the evil being remedied.

The long-pending question of the rating of local charities has been settled by a compromise, the overseers consenting that they should only be rated to the extent of the legal beneficial occupation and not beyond it. The rating of the General Hospital, which was accepted as a test-case, was thereby reduced from £650 to £200; that of the Queen's Hospital from £420 to £150; and the other charities in proportion. It is to be hoped that this is only the thin end of the wedge, and that by legislative interference the absurd anomaly of rating institutions devoted exclusively to the service of the poor will be done away with.

The tenth annual meeting of the governors of the Children's Hospital was held on the 9th inst. The report shows that the income from all sources amounted to £1887, and the expenditure to £2501. The charity has, however, during the year, had two windfalls: the first being an anonymous contribution of £1000, and the second the bazaar, the profits of which are estimated at £2500. The medical staff report that 10,812 out-patients, 812 in-patients, and 177 home-patients have been attended during the past year. The out-patients are lessened in number compared with the previous years by 3000, and this is attributed to the establishment of a small payment by out-patients on their first application for relief.

The Hospital for Diseases of Women has received the handsome donation of £500 from Mrs. Keep, of Edgbaston. The late Miss S. J. Food has bequeathed to the Queen's Hospital £700, to be expended in furnishing the new wing for out-patients, which is now in course of erection.

Dr. B. W. Richardson will lecture at the Midland Institute during the forthcoming session on "Hallucinations" and on "Moral Conation," and both subjects will doubtless be handled in such a manner as to greatly edify the students of that society, and to add to the reputation of one who ranks high as an original thinker and intelligible exponent of physiological subjects.

The Midland Medical Society has, under Mr. West's presidency, received a large accession of members during the present session.

Birmingham, Jan. 13th, 1872.

Obituary.

MR. CHARLES SIDEY.

ANOTHER link between the old order of practitioners and the new has passed away in Mr. Charles Sidey, of Edinburgh, who died there on the 27th ult., at the age of seventy-five. He was taken ill only a few hours before his death, which, sudden as it was, appears yet more so from the robust frame and vigorous bearing he preserved, in spite of his many years, to the last. Mr. Sidey took the licentiateship of the Royal College of Surgeons of Edinburgh and began his professional career in the neighbourhood of Holyrood, where his sagacity in diagnosis and his skill in treatment, especially in the diseases of children, rapidly brought him into public favour. His judgment was highly esteemed by his professional brethren, among whom the late distinguished surgeon, Mr. Syme, frequently consulted him even during his last illness. A busier or more successful practitioner than Mr. Sidey was not to be found in Edinburgh, whose citizens will long miss the manly figure, the genial smile, and the happy temper which endeared him to the social circle and added to the confidence he inspired at the sick-bed. He contrived to maintain the most intelligent appreciation of modern medical science amid the incessant calls upon his time, and he seldom failed to attend the societies belonging to his profession or to assist in the discussions with a force at once penetrating and practical. Mr. Sidey was a widower, and leaves behind him a son, Dr. James Sidey, who, besides his professional distinction, has attained to considerable popularity as a writer of humorous lyrics.

JAMES ABERCROMBIE, M.D., L.R.C.S. EDIN., CAPE TOWN.

WE exceedingly regret to have to record the death of this gentleman, who was in foremost practice in Cape Town, and whose death, in the very vigour of manhood, has caused a profound sense of gloom in the town and colony generally. James Abercrombie was born in June, 1830, at Cape Town, his father being one of the leading medical men of the town, and whose practice was nearly as extensive as that of his son who came after him. In 1840 Dr. Abercrombie, sen., came to England, bringing with him his family, and after seeing his son placed at a first-class school in the neighbourhood of London, returned to the colony and his practice. For fourteen years James Abercrombie pursued his studies in England and Scotland, in school and in college, with that assiduity and ability which marked the whole of his after career, and the prizes which were sent to the Cape, as he successfully passed examination after examination, gave evidence of his work and his ability. After leaving school he went to college at Edinburgh, where he carried off high honours, graduating in 1851, and returning to the colony in the following year as a M.D. and Licentiate of the College of Surgeons. His college reputation preceded him to the colony, and he had not been many months resident in Cape Town before he had acquired an extensive practice, which so increased that at the time of his death he had to refuse numbers who appealed to him for his services, whilst the work he undertook was more than he was constitutionally able to do. He never refused his assistance if he could possibly afford it, and the result was that he rarely ever spent a whole night in bed, and every hour of his day was engaged. The consequence of this overwork was that his health gave way, and in 1863, on the advice of his friends and medical men, he left the colony for change of air, and visited Europe. The change but slightly delayed the inevitable end. Dr. Abercrombie's name will be long remembered and cherished in Cape Town.

M. BARTH, who since Trousseau's death has a large share of the consulting practice of Paris, is President of the Academy of Medicine of Paris for 1872. At the meeting of Jan. 2nd he announced the death of Dr. Jaeger, of Vienna. At the Academy of Sciences, M. Faye, who presided during the illness of M. Coste (whose eyesight is improving, after having been in a precarious condition), takes the presidential chair for the current year.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council on the 11th inst. the following gentleman was admitted a Fellow of the College:—

Stedman, John Buck, Godalming, Surrey; diploma of Membership dated March, 1841.

The following gentlemen passed the primary examination in Anatomy and Physiology at meetings of the Court of Examiners on the 16th and 17th inst.:—

A. M. Hines and G. Morris, Manchester School; C. K. C. Herapath and W. R. Cossham, Bristol School; G. H. Keyworth and C. L. Webb, Guy's Hosp.; F. S. Winkworth, C. F. Jewesbury, F. S. Alford, and G. E. Lawrence, University Coll.; E. B. Hartley, L. B. Ward, and T. H. Hills, St. George's; J. Dobson and W. Tyson, Leeds School; M. Coote, St. Thomas's, and Laval Coll. Canada; A. M. S. Hamilton and T. Wallace, Belfast; A. H. Williams, Aberdeen and St. Thomas's; G. Sargent, St. Bartholomew's and Cambridge; C. A. Brodribb, St. Mary's; C. L. Drew, London; J. R. Essex, Univ. Coll. and Bristol; R. H. West, Cambridge and St. Thomas's; A. M. French, A. N. Taylor, E. Bowen, T. A. Lewis, H. A. Collins, R. C. Gibb, J. T. Carey, R. M. Talbot, and G. Wigan, Guy's; R. G. Tucker, N. E. Buck, G. T. Penny, W. Owen, H. Dove, and R. Williams, St. Bartholomew's; W. J. Seward, Univ. Coll.; J. Leonard, Sheffield, Guy's, and Charing-cross; J. D. Lloyd, Bristol; R. P. Roby, Birmingham School; J. M'Monagle, New York and St. Thomas's; E. R. Webb, St. George's; H. G. T. Strickland, King's College.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 11th:—

Salmon, Alfred Lidgey, Truro, Cornwall.
Sylvester, Kirwan Francis, Trowbridge, Wilts.

As Assistant in Compounding and Dispensing Medicines:—

Houghton, Robert William, Waite-st., Old Kent-rd.

HUGH MCNICOL, L.F.P.S. Glasg., has been placed on the Commission of the Peace for Invernesshire.

THE next meeting of the Association of Medical Officers of Health will be held on Saturday, January 20th, at 9.30 P.M. A letter will be read from the Board of Trade, on the Water-Supply of London, after which Dr. F. Crace Calvert, F.R.S., F.C.S., will deliver an address on Protoplasmic Life.

AT a numerously attended meeting of the St. Olave's District Board of Health, Southwark, held on Tuesday last, an increase of £50 a year in the salary of Dr. J. Northcote Vinen, the medical officer of health, was unanimously voted, in appreciation of the manner in which he has performed the duties of his office for the last sixteen years. This act was rendered the more graceful by its being entirely voluntary on the part of the Board.

A FEW days ago Superintendent Thomson and the men of the Bow-street division of the Metropolitan Police presented Dr. Alfred Harvey with a silver salver, on the occasion of his retirement from the office of surgeon to the division after a long service. The salver bore the following inscription:—"E Division of Police of the Metropolis, Bow-street.—Only a small token of the esteem of our officers and men towards their kind friend, Dr. Alfred Harvey, who never spared himself to help and soothe any of them, often at times when a cheering word was so welcome. Our divisional surgeon is leaving us, and the loss is ours. May he be happy wherever he goes. In memoriam.—James J. Thompson, Superintendent. London, Christmas, 1871."

ON the 11th inst. the students of the Charing-cross Hospital presented Mr. Barwell with a handsome claret-jug composed of glass and silver, richly ornamented and engraved. It was accompanied by the following letter:—"The students of the Charing-cross Hospital beg to present their congratulations to Mr. and Mrs. Barwell, and would feel gratified by their acceptance of the accompanying jug as a slight token of the respect and esteem in which Mr. Barwell is held by them." Mr. Barwell acknowledged the present in the following terms:—"Gentlemen,—The kind congratulations and the charming present which you have offered to us are very welcome to us both. Allow me for myself to say that I esteem this token of your regard most highly. As a constant memorial that such has been accorded me, I intend to have your gift engraved and to place it with your letter under glass, dedicating its use only to special seasons of rejoicing.—With the best hopes and wishes for your future welfare, I remain yours very truly, RICHARD BARWELL."

Medical Appointments.

BANKART, J., M.B., F.R.C.S.E., has been elected a Surgeon to the West of England Eye Infirmary, Exeter, vice P. C. Delagarde, F.R.C.S.E., deceased.

BOSTWICKTLE, H., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kellena and Wells Dispensary District of the Gorey Union, Co. Wexford.

BREW, T. F., L.R.C.S.I., L.M., has been appointed Medical Officer to the Royal Irish Constabulary, Ennistymon, Co. Clare, vice James Shannon, M.D., L.R.C.S.I., deceased.

BURROUGHS, E. F. H., M.R.C.S.E., has been appointed Medical Officer to the Barnstaple and Ilfracombe Railway Company.

CARTWRIGHT, S. H., M.R.C.S.E., has been appointed Lecturer on Dental Surgery and Pathology at the Dental Hospital of London School, vice S. Cartwright, F.R.C.S.E., resigned.

CHAPMAN, J., M.R.C.S.E., has been appointed Surgeon to the Folkestone Dispensary, vice C. Lewis, resigned.

COURTENAY, E. M., M.B., C.M., has been appointed Clinical Assistant to the West Riding of Yorkshire Lunatic Asylum, Wakefield, vice J. Lowe, M.B., C.M., appointed Assistant Medical Officer to the Durham County Lunatic Asylum, Sedgefield.

CROFT, Mr. W. R., has been appointed Chief Sanitary Inspector of Sheffield.

DAWSON, R. H., M.R.C.S.E., has been appointed Medical Officer for the Newton District of the Gainsborough Union, vice R. M. Willan, M.R.C.S.E., resigned.

DUKES, M. C., M.D., L.R.C.P.L., M.R.C.S.E., has been elected Medical Officer for District No. 3 of the Croydon Union, vice H. T. Scott, L.R.C.P.L., L.F.P. & S. Glas., resigned.

FOSTER, Mr. F., has been appointed Secretary to the South Staffordshire General Hospital, Wolverhampton.

HANRAHAN, J. A., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Cappaghduff Sub-district of the Ballinrobe Dispensary District, Ballinrobe Union, vice W. Singleton, M.D., L.R.C.S.I., deceased.

HUNTER, M., M.D., L.R.C.S.Ed., has been appointed Out-door Accoucheur to the Glasgow Maternity Hospital and Dispensary, vice Paterson, resigned.

JOHNSTON, Dr. A. C., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Knocktopher Dispensary District of the Thomastown Union, Co. Kilkenny, vice T. Bradley, M.R.C.S.E., resigned.

LIDBETTER, T. G., L.S.A.L., has been appointed Assistant Resident Medical Officer to the Holloway and North Islington Dispensary, vice A. H. Hackney, M.R.C.S.E., resigned.

O'REILLY, R., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Lismore Dispensary District of the Lismore Union, Co. Waterford, vice J. E. Currey, M.D., M.R.C.S.E., resigned.

ORMEBY, L. H., L.K.Q.C.P.I., L.R.C.S.I., has been elected a Surgeon to the Meath Hospital and County of Dublin Infirmary, vice R. St. J. Mayne, L.K.Q.C.P.I., L.R.C.S.I., deceased.

PEGUM, T., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Cragaknock Dispensary District of the Kilrush Union, Co. Clare, vice J. F. Rowan, L.K.Q.C.P.I., L.R.C.S.I., appointed to the Kilkee District.

PHILPOTS, E. P., M.D., has been elected Medical Officer and Public Vaccinator for District No. 3 of the Poole Union, Dorsetshire, vice A. P. Hamilton, M.D., M.R.C.S.E., resigned.

POASON, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Public Vaccinator for the Templenewsam and Thorp Stapleton District of the Hunslet Union.

POWELL, W., M.R.C.S.E., has been appointed an Hon. Medical Officer to the Bromyard Cottage Hospital.

ROBERTS, A. C., M.R.C.S.E., has been elected Registrar to the West of England Eye Infirmary, Exeter, vice Bankart.

ROSE, Mr. H., L.D.S., has been appointed Dental Surgeon to the National Dental Hospital, Great Portland-street, vice Mr. C. Lane Clark, resigned.

RYAN, W., L.F.P. & S. Glas., has been appointed Admiralty Surgeon and Agent for Liscannor, Co. Clare, vice J. Shannon, M.D., L.R.C.S.I., deceased.

SAUNDERS, C. E., M.D., M.R.C.S.E., has been appointed Surgical Registrar to St. Thomas's Hospital, vice W. Anderson, L.R.C.P.L., F.R.C.S.E., resigned.

STANLEY, W. E. S., L.R.C.P.Ed., has been elected Medical Officer and Public Vaccinator for District No. 8 of the Thingoe Union, Suffolk, vice J. J. Ellis, L.R.C.S.Ed., deceased.

VEAL, T. S., M.R.C.S.E., has been appointed Medical Officer for the Eastern District of the Pateley-bridge Union, Yorkshire, vice R. H. Dawson, M.R.C.S.E., resigned.

WILLIAMS, J. D., L.R.C.P.L., has been appointed Medical Officer for the Llanrhaiadr District of the Llanfyllin Union, vice W. L. Hughes, L.R.C.S.Ed., M.R.C.S.E., deceased.

Births, Marriages, and Deaths.

BIRTHS.

ARMSTRONG.—On the 12th inst., at Parrock-street, Gravesend, the wife of J. C. Armstrong, M.R.C.S.E., of a daughter.

BUCK.—On the 15th inst., at Crossage, Salop, the wife of Henry J. Buck, M.R.C.S.E., of a son.

GROSVENOR.—On the 13th inst., at Ladbroke-grove, Kensington-park, the wife of G. F. Grosvenor, M.D., of a son.

KIRK.—On the 11th of October last, at Zanzibar, the wife of John Kirk, M.D., Acting Political Agent, of a daughter.

LEACHMAN.—On the 29th ult., at Petersfield, Hants, the wife of A. Warren Leachman, M.D., of a daughter.

WRIGHT.—On the 11th ult., at Katmandoo, Nepaul, the wife of D. Wright, M.D., Presidency Surgeon, of a son.

MARRIAGES.

DOUGALL—NICHOLL.—On the 10th inst., at Halifax, Keir Johnston Dougall, L.F.P. & S. Glas., to Grace, daughter of Thomas Nicholl, Esq.

MARCH—THOMAS.—On the 11th inst., at Christ Church, Blackpool, Dr. Frederick Kimbell March, to Miss Thomas, of Sheffield.

DEATHS.

BROOKE.—On the 7th of Nov. last, at Hobart-town, Tasmania, Dr. T. T. Brooke, late of Gipsy-hill, Norwood.

CRANFIELD.—On the 9th inst., T. G. Cranfield, M.D., of Lymington, Enniscorthy, Co. Wexford, aged 60.

FRANKS.—On the 15th inst., G. Franks, M.R.C.S.E., of Mayow-road, Forest-hill, aged 68.

HARRIS.—On the 10th inst., Andrew Harris, Resident Medical Officer at the Workhouse Infirmary, New Bridge-street, Manchester, M.R.C.S.E.

JONES.—On the 9th inst., Edwin Jones, M.D., of Ilkyl, aged 41.

ROBINSON.—On the 8th inst., H. C. Robinson, M.R.C.S.E., of Stepney-green, aged 64.

WADE.—On the 16th inst., Robert Wade, F.R.C.S.E., of Dean-street, Soho.

WARD.—On the 12th inst. (at the residence of his eldest son, Saltburn, Twickenham-common), Martindale Ward, L.R.C.P.Ed., F.R.C.S.E., of Markham-square, Chelsea, Surgeon-Major South Middlesex Volunteers, aged 52.

Medical Diary of the Week.

Monday, Jan. 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
SOCIAL SCIENCE ASSOCIATION (Adam-street, Adelphi).—8 P.M. Discussion, to be opened by Mr. G. W. Hastings, on the Report of the Royal Sanitary Commission.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Lettsomian Lectures. Dr. S. O. Habershon, "On the Pathology and Treatment of some Diseases of the Liver." Lecture II.: The Liver and its Bloodvessels.

Tuesday, Jan. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. W. Rutherford, "On the Circulatory and Nervous Systems."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Rutherford, "On the Excitability of different parts of the Trunk of a Spinal Nerve." —Dr. C. A. Gordon, "On Forms of Surgical Returns and Reports to be used in War."

Wednesday, Jan. 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
HUNTERIAN SOCIETY.—7 P.M. Council Meeting.—8 P.M. Dr. Morell Mackenzie, "On the differential Treatment of Bronchocele."

Thursday, Jan. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On the Chemistry of Alkalies and Alkali Manufacture."

Friday, Jan. 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Cooper Forster, "On a Case of Popliteal Aneurism, with Remarks on Treatment." — Mr. Hulke, "On the Therapeutic Value of Condurango as a reputed Remedy for Cancer." —Mr. T. Bryant, "On Two Cases of Recto-Vesical Fistula treated by Colotomy."
ROYAL INSTITUTION.—9 P.M. The Archbishop of Westminster, "On the Demon of Socrates."

Saturday, Jan. 27.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Wm. B. Donné, "On the Theatre in Shakespeare's Time."

Notes, Short Comments, and Answers to Correspondents.

THE ETHICS OF CONSULTING PRACTICE.

AN answer is desired to the following questions:—Is it right for a member of the Royal College of Physicians, London, in attendance on a case, to consent to meet in consultation a licentiate of the same College? Also, is it proper that, in case of a difference of opinion, the member should give way to the licentiate? Our answer is, that any medical man acting as a general practitioner should be willing, and even glad, to meet any other medical man duly qualified. It would say little for our collegiate amenities if the member of a College should decline to meet a licentiate of the same College. Secondly, should a serious difference of opinion arise, which cannot be discussed away, the medical man in attendance should state the fact to the patient or his friends, and request them to say which opinion they prefer. In the event of its being the opinion of the licentiate, the member would be justified in asking to retire quietly from the case, not because he is a member, but simply because the comfort of a medical man and the dignity of the profession are best promoted by a courteous independence, and by respecting the liberty of patients.

Mr. W. J. Rutherford, (Shipley.)—A dangerous lunatic should, of course, be sent to an asylum as soon as practicable.

White.—Our advertising columns will give the information asked for.

BACKWARD PROGRESS: THE GERM THEORY.

To the Editor of THE LANCET.

SIR,—Two communications published in your last issue, on the subject of "Fever Poisons" and "Disinfection," have suggested to me the following contrast of opinion.

Speculative view of the nature of contagion in the year 1831.

"The subtile poisons which propagate contagious distempers, being the products of organic life and of morbid conditions of the animal body, are, it is probable, of a complex nature, and owe their existence to affinities which are nicely balanced and easily disturbed; even more easily than those maintaining some of the products of vegetable life, which lose their original properties and acquire new ones when exposed to temperatures of no great amount. Thus starch is converted, by a moderate heat, into a substance somewhat resembling gum, and by weak chemical agents into sugar. In most cases of this kind it is probable that increased heat produces no change either in the number or properties of the atoms of the substance, but that in some way which chemical science has not yet enabled us to explain, it modifies only the arrangement of the atoms, and thus confers new distinctive characters."—*Philosophical Magazine and Annals of Science*, vol. x., pp. 364-5.

The above embodies the views of Dr. Wm. Henry, of Manchester, after he had made his celebrated experiments on the effects of increased temperatures on vaccine matter, showing that the activity of that morbid product is destroyed by a temperature of 140° Fahr.

Germ-theory opinions in 1872.

"The object of the diffusion of a volatile antiseptic in air is the destruction of disease-germs. ..... Lemaire prevented mildew by placing carbolic acid in a saucer in a cupboard infested by it."—*Dr. A. P. Buncon*, THE LANCET, Jan. 13th, 1872.

"Fever poisons are organic [organised], have a life, a growth, will produce their like, and if planted in favourable soil, grow, run their course, live their natural life, die out, and leaving seed behind them, reproduce themselves. ..... These poisons do not necessarily require a human body for their growth; they will grow on a dunghill or in a cesspool, wherever there is a favourable nidus, like fungi."—*Mr. W. U. Buie*, THE LANCET, Jan. 13th, 1872.

These are specimens of germ utterances based upon no experiments on contagious or infectious matters, and whose only foundation is certain observations on microscopic organisms connected with putrefaction, and not with disease, whose vitality a celebrated manufacturer of carbolic acid, with the object of invalidating Dr. Bastian's experiments on spontaneous generation, has been at great pains to show is only destroyed by temperatures of 400° Fahr. and upwards.

The view of the matter of the infectious diseases which is given in the above extract from Dr. Henry's writings connects philosophically, it would seem to me, the morbid bodily states to which those affections are due with the conditions whereon depend the non-infectious distempers, leaving open for pathological investigation that prolific field in which lie the subjects of the functions of cells in health and disease, the transformations of bioplasm, the vitiation of the processes of nutrition, &c. The resuscitated germ theory, on the contrary, shuts us out from that field, deberring us from the investigation of the morbid blood products, and leaving for research only the fungi and animalcules which grow in the barren external highways, wherewith the intimate inquiries of the human pathologists have properly nothing to do.

Yours obediently,
London, Jan. 14th, 1872. FORWARD PROGRESS.

THE STOCKTON SURGICAL HOSPITAL.

Justice.—According to Mr. Howson's own statement in the *Stockton Herald*, his position is a very anomalous and unsatisfactory one. It is remarkable that a medical man (Mr. C. Trotter) should have been present at the special meeting, and given his sanction to the house-surgeoncy being held by an unqualified gentleman. This may be kindly meant to Mr. Howson and the hospital; but they may both have occasion to say, "Save me from my friends."

Beta.—It is not to be recommended, and does not seem to us necessary. The fact may be communicated privately to all patients.

Mr. Smallwood.—We do not prescribe. Consult a physician.

CONVALESCENT HOMES.

THESE institutions are rapidly coming to be recognised by all intelligent persons as almost indispensable adjuncts to general hospitals. And the success which has attended the establishment of Convalescent Homes has tended to confirm the conviction formerly entertained of their utility. Thus Mr. D. Lupton and the Rev. E. Jackson, managers of the Bank Lodge Fever Convalescent Home, Leeds, are, we are gratified to see, able to report very favourably of the progress of that valuable institution. During the year 1871, four new bedrooms, for the accommodation of 26 patients, were built. In the same year, 361 patients were received into the Home, of whom 324 were discharged quite well; the remainder, excepting 4, of whom 2 died, having more or less improved in health during residence. It is worth remarking that the cost of the food (the patients get four meals a day), coals, and washing, is but 1s. 4d. per head per diem.

Facies, (Carnarvon.)—It is contrary to our custom to prescribe for any patients. Let our correspondent consult some medical man.

THE request of *Dr. Rattray* (Portobello) shall be borne in mind.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—Mr. Bewley's communication in your journal of the 6th instant, in reference to the subject of the fees allowed to medical men by Insurance Companies, induces me, with your permission, to relate my recent experience in this matter.

I have not the honour to be regularly appointed medical referee to any Insurance Company; nevertheless, I am occasionally requested to report on the lives of such of my patients as may be desirous of effecting an insurance. But although I particularly object to making a report for a smaller fee than a guinea, I have not hitherto been so fortunate as your correspondent in obtaining the full fee; for I have invariably found that when the sum insured for is under £300 or £500, according to the particular Office, a fee of half a guinea only is allowed.

The latest case of the kind occurred to me last month in connexion with the Imperial Union Assurance Company; and the sequel will show that, although I succeeded in procuring the full fee, it was, I fear, at the expense of my patient. The particulars are as under.

On Dec. 16th, I received a request from the Managing Director of the Company to examine and report on the life of Mr. ———, and intimating that the insurer would pay me the fee to which I was entitled—namely, half a guinea, which sum would be returned to him on effecting the insurance. Accompanying this was the usual form of certificate, requiring answers to a most formidable list of questions, and at the end of the paper was a form of receipt for me to fill up and sign, to show that my fee had been paid. Without making any inquiry as to the amount of the insurance, I informed my patient that my usual fee was a guinea, but that the Company only allowed half that sum. To this he replied that he would pay my demand, which I am afraid he did to his loss, as I received no reply to the following note to the Managing Director, which I forwarded with my report.

Sandon, Stone, Dec. 18th, 1871.

DEAR SIR,—In forwarding you my report on the life of Mr. ———, I beg to say that my fee for the examination is £1 1s., which sum he has paid me; but I find that your Office allows only 10s. 6d. when the insurance is under £500. Now, I cannot see on what principle the Imperial Union Assurance Company has come to this determination, inasmuch as it seems to me that the question of the amount for which the insurance is effected is one between the Company and the insurer, and has nothing whatever to do with the medical man; for I presume he is expected to exercise the same care, and in fact has to answer identically the same questions, when examining for a small as a large one. I am, dear Sir, yours faithfully,

John H. Evans, Esq., Managing Director, Imperial Union Assurance Co. J. H. TYLECOTE.

The above is only one of the many instances which I could bring forward in illustration of the way in which the Insurance Companies mulct medical men of their legitimate fees.

Yours obediently,
Sandon, Stone, Jan. 9th, 1872. J. H. TYLECOTE, M.D.

J. H., (Horncastle.)—Disinfect woollen clothes by dry heat at a temperature of not less than 250° F. An ordinary oven will do. All materials that would not be injured by it should be first steeped in a solution of carbolic acid of 10 per cent. strength, and afterwards well boiled in washing. It would be well to expose everything to the action of the sun and air for at least several days before being again taken into use.

VACCINE VIRUS.

A CORRESPONDENT is informed that application for vaccine in tubes must be made to the National Vaccine Establishment, Privy Council, Richmond-terrace, S.W.

Mr. W. Alderman.—The subject alluded to in our correspondent's letter is important, and shall not escape our attention.

STATISTICS OF OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—In your article on "The Collateral Statistics of English Surgery in Public Medical Charities for 1870," by Messrs. Bradley and Whitehead, you state that there are no cases of ovariotomy mentioned as being performed in the Hospital for Women. As some of your readers may suppose that this omission is due to my not having sent any returns, I beg to state that I have never received any application for them from these gentlemen, and that if I had I should have been very pleased to have given them any information in my power.

I may mention that I published in THE LANCET an account of eleven consecutive cases performed during the last half of the year 1870.

I am, Sir, yours truly,
WALTER RIGDEN, House-Physician.
Hospital for Women, Soho square, Jan. 14th, 1872.

OBSTETRIC ENGAGEMENTS.

Mr. D. Ainley.—We must ask our correspondent to forgive us for delay in answering his letter, which had been mislaid. The County Court judges have generally decided in favour of the doctor's claim, and probably generally would do so. But lately a most peculiar and, to our mind, unjust judgment was given against the doctor's claim (see THE LANCET, Dec. 9th). There has been no decision on the subject by a superior court, and until this is procured in some case by appeal, the law will be somewhat uncertain. But in a neighbourhood like our correspondent's it would be worth while, in the event of an unfavourable judgment, to carry the question to a superior court.

Dr. Worthington.—The action of the chairman does seem to have been very off-handed and unsatisfactory. Dr. Worthington ought to consult his lawyer as to the legality of his proxies, and the propriety of appealing to the subscribers.

CHARLES LEVER ON PHYSICIANS IN THE PEERAGE.

THE following letter appeared in the *Pall Mall Gazette* of Tuesday last:—

SIR,—At a very remote corner of Europe I have just read a leader in *The Times* on the question of the rewards that might with propriety be extended to eminent medical men, and the reasons which, according to the writer's opinion, should exclude them from the greatest reward of all—the Peerage. *The Times* argues the question fairly enough. There is no more than truth in saying, however vague and mysterious the significance may be, that "this is not the moment in our history in which any extension of the feudal principle would be particularly well received, and that the hereditary principle would incur a certain shock at the innovation." Less fairly, the writer asserts that we have no security that "the son of the doctor would be himself a doctor, or eminent, if he were one"; for surely we enjoy no similar security with regard to those persons whose distinguished services have raised them to the Peerage. In elevating the great soldier, the diplomatist, or the lawyer to the Upper House, do we stipulate what the eldest son of any of them may be? or do we look for any other security than the likelihood that the man whose merits have raised him to the highest rewards of the State will, in his intense conviction as to the qualities by which his own success has been achieved, so educate and train his son as to fit him for an exalted station, and enable him, so to say, to justify the advancement of his house? I do not know that we have any other guarantee than this, nor do I see that we need one.

That the eminent physician might not have adequate means to sustain his increase of rank is no more than might be said of the successful barrister; and of course selection in either case would be influenced by this circumstance. The rewards of Medicine of late years have, however, not fallen very far short of those of the Bar. Sir Astley Cooper's income was rated at £30,000 per annum, and Sir Henry Halford unquestionably left behind him a fortune not unequal to the dignity of the Peerage. Many of the law lords have hesitated as to accepting titles which seem to imply a corresponding wealth; but, once in the Upper House, there has never been heard in any section of society a word that could connect their influence with or measure it by the extent of their fortunes. So would it be with the physician. He could not compete as a territorial magnate with many around him; but his position would not be less dignified, nor his words carry less weight.

I own that I am anxious to see some share of the high honours of the State bestowed upon a class which, whether simply regarded as numbering among them some of the ablest thinkers and writers of the age, or conferring more gratuitous services on the world than every other rank and condition together, are still less recognised than any other. I see with satisfaction the advancement of the great soldier, the gifted diplomatist, or the learned lawyer to the rank of our hereditary nobles. I can admit a certain fitness in accepting great wealth as a qualification, if great wealth represents industry; but it is in the very diversity of these men's pursuits, whether as lawyers, bankers, or millowners, that I recognise a greater gain to the wisdom of Parliament than any distinct course of training could possibly confer on any one section of mankind. When Figaro said, "All the world was wiser than any one," he uttered a great truth, and it is in this aggregate of opinion that the highest wisdom is sure to be found. If, therefore, I am very desirous that the doctors should have their fair share of the honours of the State, my eagerness is sharpened by remembering how self-rewarding your generosity will be. Among all the trained and polished intellects you assemble in the Upper House you have not got that special form of mind that distinguishes the doctor. You have not got a man whose daily life and labour is passed between the deepest problems of science and the practical working of the great truths he has been considering. In knowledge of his fellow-men he is without a rival. His study of temperament is a study of character; and this not in one class or condition, but in every walk and rank—from the palace to the hovel. He is the one man with whom no fallacy can succeed that assumes to say what men in this or that station might do or think, for he knows them all. Occasions now and then arise in which it would be an inestimable benefit to legislation to know the spirit and temper of the people at large—to learn how, apart from the language of the press, and in sections where the press is less of an influence, men think and speak of the topics of the hour. The fluctuations of public opinion, the steps by which men cool in ardour about this or become hotly impassioned as to that other, those strange revulsions of sentiment which nations feel like individuals—witness, for instance, the singular sense of sympathy in favour of France that came over England in the last months of the war,—these are not only more quickly noted by the doctor, but he is better able to gauge their strength and depth, and argue as to their durability. To him these signs are purely symptomatic, and he measures them by the habits of his art. The hysterical bursts of national passion that mean nothing more serious than a manifestation; the taste for revolution which simulates the spread of epidemical disease, and yet contains no real germ of malady;—all these he is familiar with; and which of you, I would ask, knows them as he does? Is it you, my lord duke, or is it the noble lord on the woolsack? or could the right reverend bench ever depute one of their body who could pit his knowledge of his fellow-men against this ubiquitous comforter, who now whispers his words of warning to Royalty, now holds the cup to the famished child in fever?

To the great social questions which latterly have occupied a large share of parliamentary notice, who is there can contribute such important and varied knowledge as the doctor? The health of towns, the maladies of special trades, the influences that dispose to epidemics, the sanitary measures that limit the spread of infectious disorders, the principles that should be held in view in all cottages or houses for the poor, the character of the water-supply, and the class of diseases which are fostered by neglect of due attention to these details; the character of epidemics generally, as applicable to such visitations as cattle plague, the means to arrest it; the consideration of the quarantine laws, and what benefits modern science could contribute towards their amelioration; the health of emigrants, and the modes to promote it: these are but a part, and a small part, of the subjects on which the physician could speak with the authority of a special study; for he alone among educated men has, by making animal chemistry, physiology, and anatomy a part of his education, fitted himself to discuss these themes with a knowledge of first principles that no desultory reading or dilettanti acquirement could possibly compete with. I say it advisedly, it is a class of mind that you have not got among you, and it is an order of intellect that would contribute largely to your enlightenment. The investigating spirit that is not deterred by chance disappointment nor over-confident by chance success; the watchfulness that does not overlook small circumstances, that understands what measure of bearing they possess on larger conditions; the patient habit of inquiry, which, knowing that effects must have their cause, is ever watchful to detect the meaning of this or that change in the state of the country: these are no small contributions to bring to the assembled wisdom of the State. I find it difficult not to quote the names of a number of our distinguished contemporaries—names many of them as well known to literature as to medicine,—and ask you what body of legislators would not benefit by the addition of these to their number? Is it by the unobtrusive character of the services they daily render you that you can justify your neglect of them? or do you imagine that you have acquitted your debt to them by according the moneyed value of their labours? Not, indeed, that you do, or that you could do this; for there is not any sum that could recompense services which make demand not only on the acquirement of years of patient toil and drudgery, but of intellectual efforts strung to the highest tension, and accompanied by continual exposure to contagious malady and fever of every form of intensity. I am curious to know what quality there is in the legal mind that has established the conventional precedence over the medical, or why the highest honours of the State that are open to the one should be denied to the other? It can scarcely be said it is the higher importance that attaches to a man's belongings than to his existence; since, in the very leader I have referred to, the writer says that before a man can plead or be a witness he must at least be alive. It can even as little be that lawyers have done as much for the general knowledge and instruction of their fellow-men as the doctors. The names of the two orders in literature would soon dispel the pretension. Will it be said that the services of the lawyer to the State are more calculated to exercise a greater and more enduring influence than those of the doctor? If this ground be taken, I would reply that the discoveries of Charles Bell—discoveries which even among educated Englishmen are not known to one person in three—are of higher import and destined to greater consequences for the benefit of mankind than all that has been written by Westminster Hall for the last two centuries.

Yours, &c.,
CHARLES LEVER.

Mr. Howard Kean.—The reference to "our authority" could only be to some statement of ours in regard to the general rule guiding coroners—viz., to call as a witness the first medical man seeing the person whose case is under investigation. If the assistant mentioned were unqualified, the coroner had little option but to take Mr. Kean's evidence. He had been sent for, and, supposing the assistant unqualified, was, in the eye of the law, the first medical man who saw the case. On the other hand, if the assistant were qualified, it would be in accordance with rule, and good rule, that his evidence should have been taken.

THE BRISTOL WATER FROM LONDESBOROUGH LODGE, SCARBOROUGH.

To the Editor of THE LANCET.

SIR,—THE LANCET for Dec. 9th, 1871, having published several analyses of water from various places, including the "Bristol water," from Londesborough Lodge, Scarborough, and that being represented as "splendid water," though containing no less than 84 grains of solid residue in a gallon, it would be satisfactory to know whether so large a quantity of solid matter can really constitute "splendid water." We are also informed that the residue after ignition amounts to 637. By deducting this amount from 84 grains, we have volatile matter to the amount of 20·3 in a gallon of the water. This quantity must, therefore, represent organic matter in some form or other, either animal or vegetable; and, as the amount is by no means small, it would be a satisfaction to know the component parts of the volatile constituents which may contain unoxidised organic matter.

The fact of water being pure to the eye, free from odour, bright, sparkling, and *soft to the taste*, may sometimes be looked upon with suspicion, as I have had opportunities of proving, especially when so large a quantity of volatile matter is present.

My object in writing this letter is merely to show that we are in the dark as relates to the purity of the Bristol water from Londesborough Lodge as published in THE LANCET.

In conclusion, I would recommend all persons to boil the water which they use for drinking purposes, and not to trust to filtration only, especially as filters are liable to clog, and to impart the very impurities which they separate, or a portion of them, to fresh water. By raising water to the boiling point, and allowing it to cool in an earthen vessel, we not only remove impurities which may be suspended in water, but destroy, by boiling for a few minutes, all germinal matter, both vegetable and animal, which filtration only may not remove. The double process of boiling and filtration may be preferred, though I myself adopt the simple fining-down system of purification after boiling, taking care, however, that the vessel is kept perfectly clean. It may be said that water is rendered insipid to the taste by boiling; but in a sanitary point of view we cannot always take that which is most agreeable to the taste.

I remain, Sir, your obedient servant,
Southampton, Jan. 9th, 1872. HENRY OSBORN, M.R.C.P. Lond.

*** Chemists have long since ceased to regard the loss caused by igniting the solid residue as representing organic matter, either animal or vegetable. The fact is, the matters volatilised by heat are extremely complex. They consist largely of carbonic acid, oxygen, volatile chlorides, nitrates, &c. The mere presence of inorganic salts does not constitute unwholesomeness; indeed the only test is the relative quantity of free and albuminoid ammonia, from both of which the Bristol water was originally free.—ED. L.

Dr. Geo. Brown.—We have read the voluminous correspondence sent to us. The award of the arbitrators seems to us just and sufficient, and to admit of little more being said. Dr. Wallace's letters to the patient's husband, expressing an opinion, and that an unfavourable one, on ulterior measures of treatment, are open to very grave objection. It is only fair to remember that Dr. Wallace's account of the feeling of the patient and her husband in regard to a wish for his opinion differs from their own account to Dr. Brown. It too often happens that patients, from want of candour, withhold from their own medical man what they have said to another called in as Dr. Wallace was. But this in no way justifies a medical man persisting in regarding himself as called into consultation when he has only been called in on an emergency.

HÆMORRHAGIC VARIOLA.

To the Editor of THE LANCET.

SIR,—The following two cases of small-pox may be of use to the profession.

On the 23rd of last month I was called to see a young girl, aged thirteen, who for the past four years had been suffering from a running sore, depending upon disease of the lower end of the femur, but who yet enjoyed good general health, and was able to get about without much difficulty. I found her suffering as I at first thought from measles; she was feverish, had watery eyes, sneezing, and a rash somewhat like that of measles, only darker in colour (her mother reminded me that she had measles some years ago); her tongue was much coated, and her breath very offensive. I gave her a saline mixture, and again saw her on the following day, when I found the general appearance of the body much the same. She was very restless, but complained of no pain. I observed blood on the pillow, which I found had been oozing out of the mouth; and on looking at her legs to see if the rash were still out, I found the bedclothes stained with blood, which the mother said proceeded from chilblains on her toes. On removing the rags from her toes I found blood freely oozing from the sores, two on her right, and one on her left foot; the sore on the thigh was also bleeding. Her pulse was about 100; temperature not taken. I gave her chlorate of potass and lemon-juice, good nourishing diet, such as beef-tea, corn-flour, and milk. On the following morning her father came to my surgery for some medicine for his wife, who he said had been taken very ill, as she thought, from the smell of her daughter's breath. He reported his daughter as much the same; toes and sore on thigh still oozing out blood. During the day she was carried into a larger room, and placed on the bed, when she became very restless, and in a few minutes complained of want of breath, and in half an hour after being removed died. Just before death her bowels were moved, the motion being of a tarry appearance. I did not see the discharge myself, as it was thrown away before I arrived at the house; but such I was informed by her sister was its appearance.

I was somewhat struck with the suddenness of the termination of the case, and made an autopsy about forty-eight hours after death. There was no appearance of decomposition of the body, and a remarkable absence of smell. On opening the cavity of the abdomen, blood was seen covering the surface of the intestines, and, on lifting them up, fluid blood was found effused in the most dependent parts on both sides. In the cavity of the pelvis there was also a teacupful of thin blood. The stomach and intestines appeared healthy. The liver was large and soft; the finger could readily be pierced through its substance, and on cutting into it, and scraping the surface with the handle of the knife, it came away almost like pulp. The gall-bladder was very much distended with bile. On opening the chest, a similar appearance of fluid blood was observed lying on the surface of the lungs. The lungs themselves were healthy. The heart was very soft and flabby, and contained a small quantity of fluid blood. There was a considerable quantity of blood occupying the lowest part of each side of the chest, just above the diaphragm. On lifting up the sternum, it broke across opposite the insertion of the first ribs, and the surface of the fracture was quite black, looking exactly as if the bone had been steeped in dark blood for a long time. This was not confined to one part; for the whole of the sternum was of dark colour on the outside, as were also the ribs, and no doubt their internal appearance was the same as above described. The head was not examined. I omitted to mention, when referring to the cavity of the abdomen, that the kidneys were large and flabby. On making a longitudinal section of them, there was no appearance of their original structure, and the surface of the section could be scraped off similar to that of the liver.

There was nothing seen to indicate that this was a case of small-pox; but that it was so I think may be inferred from the fact that the girl's mother, who thought she was poisoned, as she termed it, by her daughter's breath, has had a most severe attack of confluent small-pox, from which she now is slowly recovering, and three more of the family are also laid up with the same disorder.

The second case was that of Mrs. C——, aged twenty-four, the wife of a sailor, who had only been three months confined. She had always enjoyed excellent health. She lived two doors from her father's house, where she had been constantly visiting, and her sisters (three in number) had just recovered from mild attacks of small-pox. She was seized on the 28th of last month with general lassitude, slight headache, and oppression at the pit of the stomach, when I gave her some saline medicine. Next day she was not so well, but still down-stairs, objecting to go to bed on account of her baby. I now urged the necessity of her going to bed, in order that she might have remedies applied to her stomach and back, of which she complained. On the 30th I was sent for early in the morning, as she had had no rest all night on account of the severe pains in the back, for which jars of hot water and mustard had been applied with no benefit. Pulse 100; temperature 101°. Some small pimples on the chest; face very much flushed; tongue coated slightly; bowels not well moved. As she was tossing about so much from pain, I gave her half a grain of muriate of morphia, and a calomel and colocynth pill, and had some aconite liniment rubbed over the back. She was somewhat easier about an hour after. I left half a grain of morphia to be given in two doses should the pain return. At 10.30 P.M. I found the pains in the back still very severe; some pimples were seen on the back and on the neck; several small, dark, livid spots or petechiæ; no pimples on face; pulse 104; temperature not taken, but heat did not appear very great. As the bowels had not acted, another pill was given similar to that in the morning; to continue saline mixture. On the 31st I visited about 10.30 A.M., and found her still suffering great pain in the back; the neck and upper part of the chest were now covered with small petechiæ; the conjunctivæ of both eyes of the colour of liver, and a bluish swelling under the eyes; pulse 96; temperature 101°. The bowels not having opened, a draught of sulphate of potass and senna was given. — 3 P.M.: Pain in back somewhat less, but petechiæ more developed, and extended to the face; pulse 104. Blood was oozing from the mouth. I now became apprehensive of the very serious character of the attack, and, being guided by the result of the former case, I warned the nurse and friends that most likely the case would be fatal, and suddenly so. About 6.30 P.M. the patient's father came to me to say that the bowels were moved, and that she appeared sinking. I was at a confinement at this time, and could not leave until about 8 P.M., when I again visited her. On entering the room, she looked up and said, "Oh, doctor, I'm dying." I found her pulseless and breathing very rapidly. I administered about two ounces of brandy without effect, and then gave about as much ten minutes afterwards. After the second dose I felt the pulse slightly. I counted the respirations, which were 68 per minute. She asked for a mustard poultice for her chest, which was put up to please her, as she said her breath was leaving her, and pointed out the spot over the heart to place the mustard on. I was obliged to leave, promising to call again in an hour. Before that time arrived, her father came to say she was gone. I ought to mention that at my last visit I found both upper eyelids black; this had taken place since three o'clock, at which time nothing amiss was observable in the upper eyelid.

There was no post-mortem in this case, and no appearances of decomposition at the time of interment on the third day after death.

Millbrook, Devonport, Jan. 8th, 1872. ALEX. B. CHEVNE, M.B.

P.S.—Since writing the above, the mother of the girl alluded to has died from laryngeal complications.

A Constant Reader.—Ejection *vi et armis* is not a dignified proceeding in the case of an applicant for medical help, even on a Sunday, and we shall be pleased to receive proof that the evidence, a report of which is sent us, is not a correct statement of the facts.

MEDICAL EVIDENCE.

To the Editor of THE LANCET.

SIR,—It is certainly time that some reformation should take place relative to the system of trying criminal cases, more particularly those involving diseased conditions of the cerebral organs. How is it possible for the men who ordinarily compose a jury to arrive at a verdict consistent with justice when the whole case turns on the mental responsibility of the accused?

In Mr. Watson's case, had the insanity been of a more *pronounced* character in accordance with the popular or non-professional idea, by the commission of some violent overt or extravagant act, he would have been acquitted on the ground of non-responsibility. Because the phase of mental disease—melancholia—does not admit of such manifestations, he is considered by the jury to have been possessed of his reason, and responsible for his acts. Had the jury been conversant with the fact that this form of insanity had arisen as a consequence of the education, sudden reverse of fortune, age, character, and position of Mr. Watson, no doubt then they would not have demanded evidences of mania incompatible with melancholia.

I have often seen both in America and England juries empanneled who were entirely ignorant of the rudimentary principles of science, yet whose province it was to decide a case involving the most complete scientific knowledge. Absurd as such cases must necessarily be, they do not jeopardise the life of a fellow-being.

In Mr. Watson's case, the majority of people say "that had he been a man without position, the plea of insanity would not have been advanced." It is exactly these popular prejudices, entirely outside the intrinsic merits of the case, which act so powerfully, and bias the mind of the jury. Collateral circumstances, which are repulsive to conventional ideas, will inevitably procure a conviction of the accused, irrespective of the merits of the case—that is, as to the guilt or innocence in relation to the actual cause which instigated the commission of the act for which he has been tried.

I remember some years since a trial for murder in New York. The accused bore the most irreproachable character prior to the event. Had he immediately after the killing given himself up to justice, no jury in England or America would have found him guilty, as the death was unpremeditated and accidental in its character. He, however, became "panic-stricken," cut the body into pieces, salted and packed it in a box, which he shipped for New Orleans. Decomposition having set in prior to the departure of the vessel, the cause of the foul effluvium from the cargo was investigated; the box found, and also the carman who brought it. These facts soon led to the discovery of the homicide. He was duly tried for the murder, found guilty, and condemned to be hanged. It was at the time a notorious conviction that had it not been for "the pickling" he would have been acquitted. So violent an antagonism to conventional ideas produced a prejudice so severe that the minds of the jury were governed by it.

This illustration enables me to state that in Mr. Watson's case the jury who found him guilty seemed to have been doubly impressed—1st, because no act of insanity had been committed prior to the deed in accordance with their ideas of what constitutes insanity; 2ndly, they were prejudiced in the reverse sense of the New York case, as they actually recommend Mr. Watson to mercy in consequence of his age and previous good character. Had they been educated men in the sense of understanding the abnormal functions of the brain during the phase melancholia, arising from sudden loss of fortune and position in a man of special characteristics like the condemned, they might have been influenced by the evidence of so able an authority as Dr. Maudsley, who pronounced the case to be one of the most insidious of all mental afflictions—melancholia.

For two years I was connected with one of the most extensive lunatic asylums in the United States. The melancholic patients were always obdurate, insusceptible of kindness; they viewed everything connected with themselves as through the most dismal and dreary medium whenever they were aroused to thinking, for in most cases the brain-function seemed in a listlessly apathetic state; but if suddenly aroused from any exciting cause, the most violent outbursts of frenzy would take place—a paroxysm of extremely short duration. It is true of nearly all cases of melancholia, it is invariably accompanied by a suicidal disposition.

My object in calling particular attention to this subject is to record the apparent indifference with which so able an exposition of melancholia by Dr. Maudsley was treated by the jury, who evidently were influenced more by the social status of the accused than by the morbid conditions of his brain, which involved his mental responsibility.

I remain, Sir, yours truly,

Brompton-road, Jan. 13th, 1872. ROBT. H. COLLYER, M.D.

UNCERTAINTY OF ANALYSES IN ORGANIC CHEMISTRY.

IN 1821, Lassaigne and Feneulle isolated the alkaloid of senna-leaves, and called it cathartine. They considered that the latter was to senna what emetine is to ipecacuanha. Now, M. Burgoin (Academy of Sciences of Paris, meeting of Dec. 18th, 1871), whilst preparing cathartine, has found that it does not constitute a definite principle, being a mixture of at least three substances: chrysophanic acid, dextrogyrous glycose, and a new substance which he calls chrysophanine. M. Burgoin must not expect to have exhausted the analysis.

THE EATON FUND.

THE following additional subscriptions have been received at THE LANCET Office on behalf of the above:—

Dr. Brisbane, Lisson-grove	£1	1	0
Mr. Pritchard, Toynham	1	1	0
M.D. Lond.	1	1	0

Mr. James Richmond.—The degree of M.D. is conferred by neither of the bodies named by our correspondent, but by a University.

Toxicologist will find remarks on the subject to which he refers in THE LANCET of December 9th of last year.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—I will thank you to publish the accompanying correspondence. The Irish College has not deemed itself able to reject formally an application which it must feel was based on indisputable grounds. No one will, I think, fail to see through the pretext which it finds for delay. My application may interest only a few members of the profession; but I commend the reply to the consideration of such of my provincial brethren in this country as have not hitherto done anything to second the efforts made to procure representative institutions for the profession. So long as the mass of the profession has next to no voice in its government, so long will the interests and the wishes of the bulk of its members be entirely subordinated to those of our metropolitan law-givers.

I am, Sir, your obedient servant,
T. LAFFAN,
Medical Officer of the Cashel Fever Hospital.

Cashel Fever Hospital and Union Infirmary,
Jan. 10th, 1872.

Cashel, Sept. 30th, 1871.

GENTLEMEN,—I beg respectfully to apply to you to grant to such apprentices of mine as may from time to time attend the Cashel Fever Hospital and Union Infirmary the same privileges you have already granted to the pupils of successive surgeons to the County Infirmary in this city. The Cashel Union Infirmary alone contains 148 beds, over 90 of which are constantly filled (as I am in a position to prove if called on to do so) with the most varied and instructive cases. In addition to a greater number of medical and surgical beds than are contained in the institution, which you have already acknowledged, these hospitals offer to pupils the following special advantages:—1st, fever wards, containing 40 beds; 2nd, a midwifery ward; 3rd, sick children's wards. I have every respectful confidence that you will, by acceding to this application, evince your willingness to open up to students in these days of practical examinations every hospital, wherever situate, capable of affording them practical instruction. I ask the recognition also on the grounds that the presence of two or three students may be expected to give here, as elsewhere, an impetus to the cultivation of medical sciences.

I have the honour to remain, Gentlemen,
Your obedient servant,
THOMAS LAFFAN,
Medical Officer to the Cashel Union Hospital.

To the President and Members of the Council of the
College of Surgeons in Ireland.

Royal College of Surgeons in Ireland.
Dublin, January 4th, 1872.

DEAR SIR,—Your letter of the 30th September last, in which you apply for the recognition of the Cashel Fever Hospital and Union Infirmary, having been specially considered by the President and Council at their meeting held this day, the following resolution (a copy of which I am directed to forward to you) was passed, viz.: Resolved—"That in the present unsettled state of medical education, the Council do not consider that they could, with propriety, make any change in the existing arrangements."

I remain yours very truly,
J. STANNUS HUGHES, Secretary of Council.

Alpha, M.D.—The fee for medical evidence before a coroner in England is one guinea. The witness, in order to be entitled to this, must be duly summoned. He can enforce payment in a County Court. He can refuse to attend if not duly summoned.

Boaz (Askam-in-Furness) had better make application to the Colonial Office for the information.

Mr. Date's communication shall receive attention.

THE MEDICAL DIRECTORY FOR 1872.

To the Editor of THE LANCET.

SIR,—I trust that the reply of the editors of the Medical Directory in your last issue will be more satisfactory to other medical men than it is to myself. They therein state for the first time that they have inserted in their Directory those foreign degrees which they find in the Medical Register. Another correspondent supports this statement by informing me, if I will compare the Medical Register and Directory I shall find they closely correspond.

If these assertions be correct, I think it will tend to prove that the Medical Directory is a somewhat superfluous work. Furthermore, the Medical Register is the authorised list of medical men and their qualifications, published by "the only body which has a right to exercise censorship in these matters," and costs 4s. The copy of Messrs. Churchill, containing in addition what they please to term "in a few instances evidence of bad taste," but what I think might be more appropriately termed many evidences of the weakness of human nature, cannot be had for double the money. I have, however, been unable to find any passage in Messrs. Churchill's notice which even implies that they intended to adopt the official Register as their guide; but I do find a positive assertion to the contrary. The passage on the subject runs thus: "*No* qualification will be inserted in the forthcoming edition of the Medical Directory which cannot be registered under the Medical Act." *Actual registration is not a condition of insertion*, but the qualifications must be such as the Registrars would receive."

Now, my complaint is that the editors have not kept their promise "to adhere strictly to the rule laid down." They have inserted licences and titles which the Registrars never have received, and have rejected many which the holders were entitled to have placed on the Register, according to sect. II, Schedule A, of the Medical Act.

Your correspondent, "H. A. H.," comes to the very logical conclusion that all the degrees omitted from Messrs. Churchill's work are "bogus," and those inserted are alone *bonâ fide*; but he does not say by what mode of reasoning the conclusion is arrived at that 78 are genuine, whilst perhaps ten times that number are rejected as fictitious, although in many instances obtained upon the same conditions and from the same Universities as the favoured few.

I am, Sir, yours truly,
January 6th, 1872. M.D. HEIDELBERG.

To the Editor of THE LANCET.

SIR,—Allow me to correct "M.D. Heidelberg" in respect to his assertion that the L.M. of the King and Queen's College of Physicians, Ireland, is unregisterable. In the 2nd page of the Register for 1871 he will find it inserted. I may remark that the L.M. of the Royal College of Surgeons, Ireland, is also registerable. The L.M. of the Royal College of Surgeons, England, is the only English registerable one. Scotland possesses none. I may also state, for the information of "M.D. Heidelberg," that the L.M. K. & Q.C.P. is granted after a special examination, altogether unconnected with the pass examination for the licence.

I remain, Sir, yours truly,
January, 1872. LIC. MIDWIFERY.

P.S.—I have examined the Register, and cannot find any L.M. from Scotland registered.

BEDFORD INFIRMARY.

WE are compelled to defer our remarks on this institution until next week.

D. A.—From twenty to thirty guineas.

Anxious Learner, (Bingham.)—Machines are manufactured by Messrs. Tylor and Sons, Newgate-street, City.

Mr. S. Dixon will oblige us by sending a specimen of the article to which he refers.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Habershon; Prof. Rutherford; Prof. Sanders, Edinburgh; Dr. Hughlings Jackson; Dr. Richardson; Dr. Elgden; Mr. Lawson; Mr. Bader; Dr. Carruthers, Runcorn; Mr. Ulrich, Hamburg; Dr. Owen, Bron Phillip; Dr. R. Collyer; Dr. Woolrych, Wellingborough; M. de Lavigerie; Dr. Knight, Frome; Mr. Lea, Philadelphia; Mr. Evans; Dr. Nason, Nuneaton; Mr. Offord; Dr. Pogson, Sancroft; Mr. Pratt; Dr. Grady, Manchester; Mr. Fawsett, Oldham; Dr. Howard Marsh; Mr. Richmond; Dr. Reed, Fulham; Dr. Fox, Broughton; Mr. MacManus; Dr. Phelps, Burnham; Dr. Laffan, Cashel; Mr. Sheppard; Dr. Dickson, Boxton; Dr. Maclagan, Dundee; Dr. Blane, Bajrote; Mr. T. H. Hustwick, Liverpool; Mr. H. Enser, Port Elizabeth; Mr. Coates, Salisbury; Dr. Mitchell, Dykehead; Mr. Fowler; Mr. Burns; Mr. Woodward; Dr. Dunderdale, Warrington; Dr. Williams, Talgarth; Dr. Brown, Colchester; Dr. M'Laughlin, Belfast; Dr. Long; Dr. Connor, Detroit; Mr. Crawford; Mr. Kenston; Mr. Walkinson; Dr. M'Pherson; Mr. Hall; Dr. Barroughs, Ilfracombe; Dr. Goodworth, Winterton; Dr. Shaw; Dr. Brisbane; Dr. Lys, Bere Regis; Mr. Dale, Scarborough; Mr. Todd, Blackpool; Dr. Poole; Mr. Morris, Mold; Mr. Harley, Dover; Mr. Forder, Uppingham; Mr. Heslop; Captain Akermann; Dr. Sankey, Beckley; Mr. Rich, Maidstone; Mr. Bell, Bristol; Mr. Smith, Ramsay; Dr. de Hohan, Brussels; Dr. Roche, Woolwich; Mr. Ross; Mr. E. Wade; Mr. Rutherford, Shipley; Mr. Cottom, Denbigh; Mr. Cooke; Mr. Pease, Bradford; Mr. Batteson; Mr. Younger, Barnstaple; Mr. Royer, Chelmsford; Mr. Holding, Richmond; Mr. Pickersgill; Mr. Wallis, Swansea; Dr. Leachman, Peterafield; Dr. Barber, Ulverstone; Mr. Henry, Malvern; Mr. Hockley; Dr. Agar, Henley-in-Arden; Mr. Lane, Ballina; M. Belloc, Paris; Dr. Merry, Hemel Hempstead; Mr. Dixon, Nottingham; Mr. Wells, Chelmsford; Dr. Browne, Wakefield; Dr. Pritchard; Mr. White, Alford; Dr. Hyslop, Church Stretton; Mr. Chater; H. A.; Constant Reader; A Woman Obstetrical Student; M.R.C.S.; Forward Progress; Medicus; Justice; Medical Dignity; J. E. W.; J. G.; Stethoscope; M.D. Lond.; C. S.; Boaz; Lic. Midwifery; Sigma; J. H.; &c. &c.

Liverpool Daily Albion, La Epoca Medica, Newcastle Daily Chronicle, Reynolds's Newspaper, Weekly Dispatch, Irish Times, Weston Mercury, Darlington Times, Revista Medico Quirurgica, Isle of Man Times, Manchester Courier, Detroit Review of Medicine, Manchester Evening News, Philadelphia Medical Times, Scarborough Express, Clapham Observer, Saturday Gazette, Glasgow Herald, Journal de Médecine, Manchester Critic, and *West Cork Eagle* have been received.

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